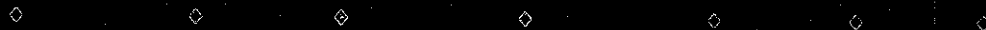




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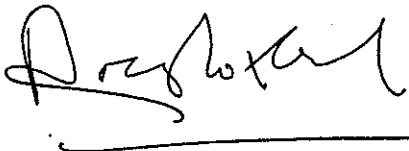
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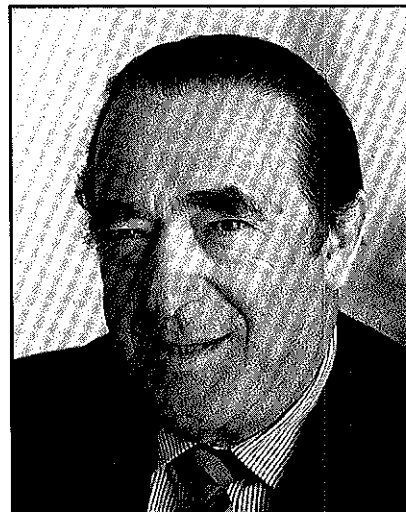
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\* see page 94.

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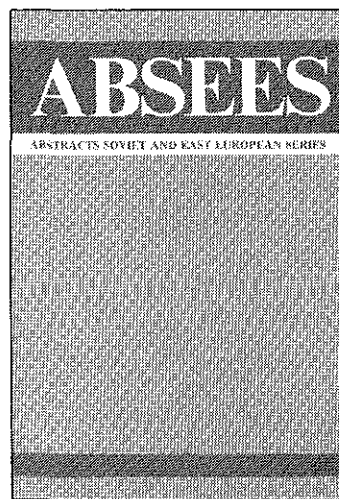
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## A Selection of Papers

Results of a seat belt use law enforcement and publicity campaign in Elmira, New York, **A F WILLIAMS et al.**  
Changing patterns in motor vehicle crash mortality: 1940-1980, **R A WHITFIELD & D FIFE.**

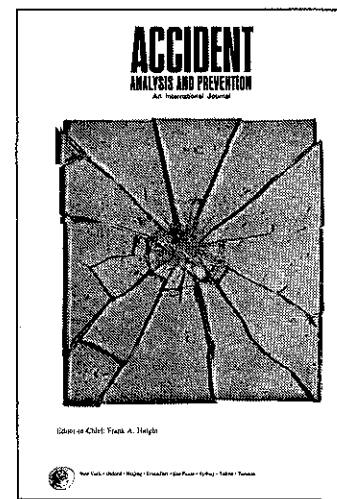
Development of models for on-board detection of driver impairment, **T A DINGUS et al.**

The prevention of injury from motorcycle use: epidemiologic success, legislative failure, **J B WEISBUCH.**

Injury as externality: an economic perspective of trauma, **L B LAVE.**

A Software Survey section is included in this journal .

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## A Selection of Papers

Planktonic foraminifera in the continental slope of the northern South China Sea during the last 130,000 years and their palaeo-oceanographic implications. **WANG PINXIAN** (China) *et al.*  
The earliest Ordovician graptolite sequence of Hungjiang, Jilin Province, China, **WANG XIAOFENG** (China) & **B-D ERDTMANN** (FRG).

Deformation characteristics and tectonic evolution of the eastern Qinling orogenic belt, **XU ZHIQIN** (China) *et al.*

Finite element-analysis of an overfold using the viscous fluid model, **LAN LABAO** (China) & **WANG REN** (China).

Evidence for the lower continental crustal origin of the Xihuashan granite, **LI YIDOU** (China) *et al.*

Structural control of the etouchang-type stratabound iron deposit in central Yunnan, **SUN JIACONG** (China).

Deposition of potash-magnesium salts in the Qarhan playa, Qiadam basin, **WU BIHAO** (China) *et al.*

Basic characteristics of the Earth's temperature distribution in southern China, **WANG JUN** (China) *et al.*

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## A Selection of Papers

An engineering approach to fluid-structure dynamic interaction problems, **Q DU** *et al.*

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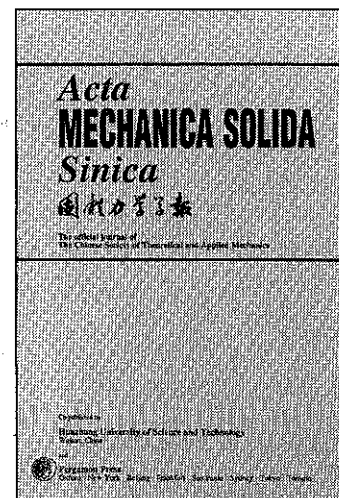
On two problems of plastic buckling of cylindrical shell under impulsive loading, **C RU** & **R WANG**.

Scattering of SH waves by numerous inhomogeneities in an anisotropic body, **W ZHONG** & **G NIE**.

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The convergent solution of rectangular plate without free edges, **G YONG**.

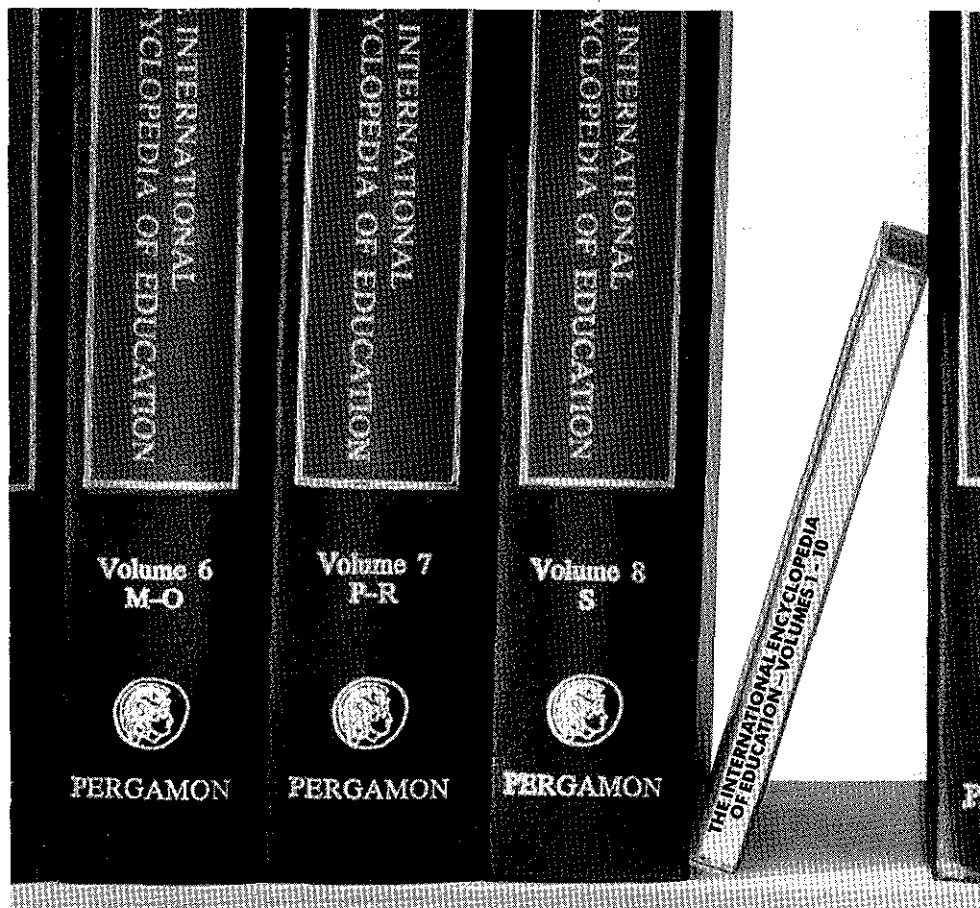
Study of law of fatigue crack propagation under random stress by statistical concept, **J HU** *et al.*



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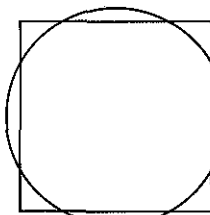
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## A Selection of Papers

Linear waves in the rotational homogenous fluid with uniform water depth-I., **YU ZHOUWEN** *et al.*

An analysis of the astrometeorological constituents of tide in the Bohai Sea, **FANG GUOHONG** & **WANG JI**.

An estimation of turbulence stresses in tidal currents of Hangzhou Bay, **LI SHENDUO** *et al.*

2-D tidal flow by operator-splitting method, **HE SHAOLING** & **LIN BINGNAN**.

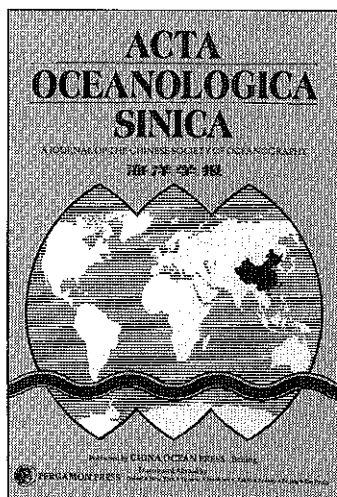
A comparative study of 1982-1983 El Nino event, **ZHANG QIWEN** & **WANG SHAOWU**.

Factor analysis for characterization of the marine aerosol in Bermuda atmosphere, **CHEN LIQI**.

Determination of residual malathion in natural water, **YANG SUNKAI** & **ZANG SHULIANG**.

Mechanism study of minimum value of dissolved oxygen in its vertical distribution in the Pacific Ocean, **DIAO HUANXIANG**.  
Geochemistry of manganese nodules in the Northern Central Pacific, **CHEN SONG** & **XU AIYU**.

A study of detrital minerals in the sediments from the Western Central Pacific Ocean, **HONG HUILIANG**.



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# ACTA SEISMOLOGICA SINICA

The Bulletin of the Seismological Society of China, Beijing

Published by the Editorial Board of *Acta Seismologica Sinica*

Editor-in-Chief: **CHEN YUN-TAI**, *State Seismological Bureau, Beijing, China*

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The Chinese version was first published by 1979 by the Science Press in Beijing. The main topics published by *Acta Seismologica Sinica* are:

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## A Selection of Papers

Structural property of the crust and the upper mantle in the Tangshan earthquake region - a method of computing body wave theoretical seismogram and the result of analysis of 2-D inhomogeneous media, **LIU CHANGQUAN** (China) & **JIA SHIXU** (China).

The Q-factors as a function of frequency in the Tangshan-Beijing area. **GAO LONGSHENG** (China) *et al.*

Synthetic regression analysis method and determination of Lg wave attenuation in six eastern provinces of China, **GE HUANCHENG** (China) *et al.*

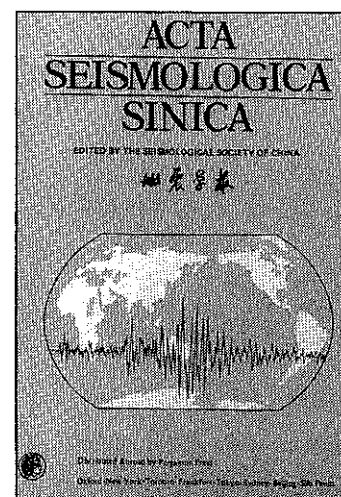
Study of geothermal variation in relation to large earthquakes (2) - the effect of temperature gradient on fracture propagation direction for strike-slip fault, **AN ZHENWEN** (China) & **ZHU CHUANZHEN** (China).

An experimental study on the process of deformation and instability for en-echelon faults, **LIU LIQIANG** (China) *et al.*

Failure characteristics under high pressure of four kinds of rocks taken from north China, **HAO JINSHENG** (China) *et al.*

Changes in transfer function before and after the 1979 Li Yang, Jiangsu earthquake, **YAN DAHUA** (China).

A wave motion method for horizontal seismic response of shear-building type, **WANG FU** (China) & **LIAO ZHENPENG** (China).



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*Addictive Behaviors* is a professional journal designed to publish original research, theoretical papers and critical reviews in the area of substance abuse. The journal focuses on alcohol and drug abuse, smoking, and problems associated with eating. Articles represent interdisciplinary endeavors with research in such fields as biochemistry, psychology, sociology, psychiatry, neurology and pharmacology. While theoretical orientations are diverse, the emphasis of the journal is primarily empirical. That is, sound experimental design combined with objective assessment procedures is a requisite for inclusion of papers. Occasionally, uncontrolled clinical demonstration or case reports appear in brief form if they are innovative and likely to induce further research in the area. A case report, to be acceptable must embody one or more of the following: (1) a new and original method; (2) an apparently advantageous variation of a previous method; (3) an observation of considerable interest; (4) an unusually clear account of the use of an accepted method. In all instances, baseline and follow-up quantitative data of no less than six months duration should be presented.

## A Selection of Papers

Cigarette smoking cessation attempts by recovering alcoholics, **J K BOBO** *et al.*

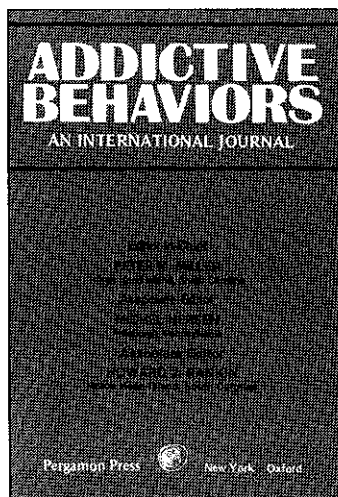
Beliefs about smoking and health: their measurement and relationship to smoking behavior, **R M TIPTON** & **W E RIEBSAME**.

The measurement of substance use among adolescents: when is the "bogus pipeline" method needed?, **D M MURRAY** & **C L PERRY**.

Correlates of alcohol consumption: sex, age, and expectancies relate differentially to quantity and frequency, **D K MOONEY** *et al.*

The effect of alcohol consumption on risk-taking while driving, **D L McMILLAN** & **E WELLS-PARKER**.

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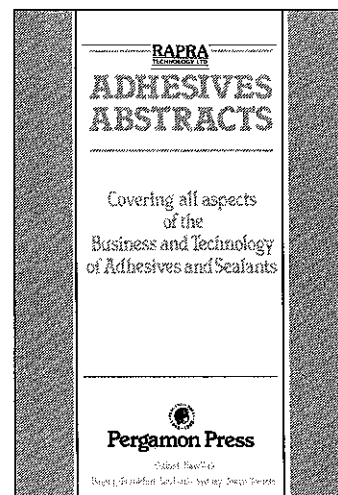
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# ADVANCES IN OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY

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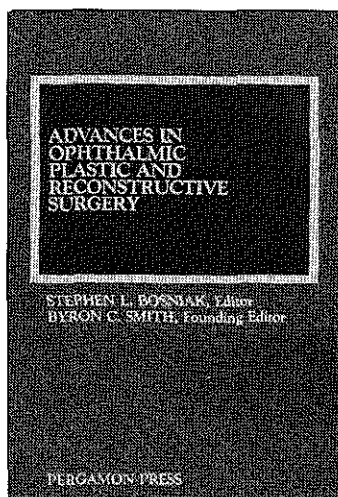
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**Indexed/Abstracted in:** *Ocular Review, National Library of Medicine Current Catalog, CATLINE, Ophthalmology*



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## A Selection of Papers

Gamma-ray astronomy, edited by **K HURLEY** (France) & **G VEDRENNE** (France).

Comets Halley and Giacobini-Zinner, edited by **E GRÜN** (FRG).

The Venus international reference atmosphere, edited by

**A J KLIJORE** (USA) *et al.*

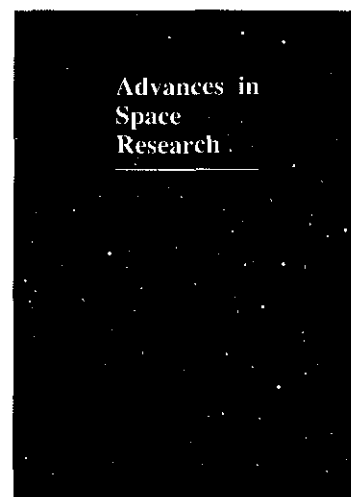
Potential of remote sensing for the study of global charge, edited by **S I RASOOL** (USA).

The physics of solar flares, edited by **C de JAGER** & **Z SVESTKA** (Netherlands).

Remote sensing: Earth's surface and atmosphere, edited by **W D CARTER** (USA).

International reference ionosphere - status 1986/87, edited by **K RAWER** (FRG) & **P A BRADLEY** (UK).

**Indexed/Abstracted in:** *Chemical Abstracts, INSPEC*

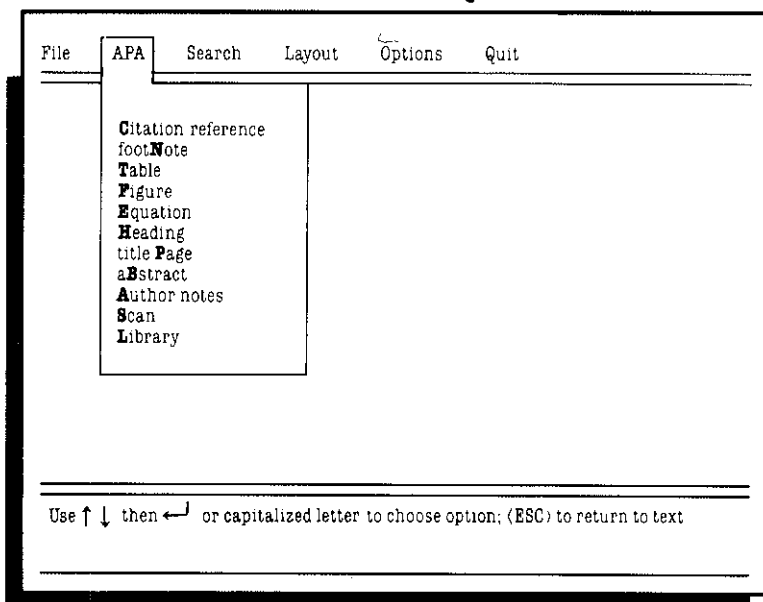


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*Alcohol and Alcoholism* publishes original research and review articles on every aspect of alcohol and alcoholism. The areas of interest include all the clinical disciplines of medicine, the basic medical sciences, psychology, sociology and epidemiology.

It is the policy of *Alcohol and Alcoholism* to publish, in English, papers which make a new and significant contribution to knowledge in the field and its related areas. The journal also contains correspondence, book reviews and other items of interest.

The journal now includes a new "rapid communications" section and has increased frequency to 6 issues per year.

## A Selection of Papers

Tetrahydro- $\beta$ -carbolines in human urine and rat brain - no evidence of formation by alcohol drinking,

**K MATSUBARA** (Japan) *et al.*

Serum apolipoprotein A-II as a marker of change in alcohol intake in male drinkers, **I B PUDDEY** (Australia) *et al.*

Patterns of compliance and evasion in treatment programmes which include supervised disulfiram, **C BREWER** (UK).

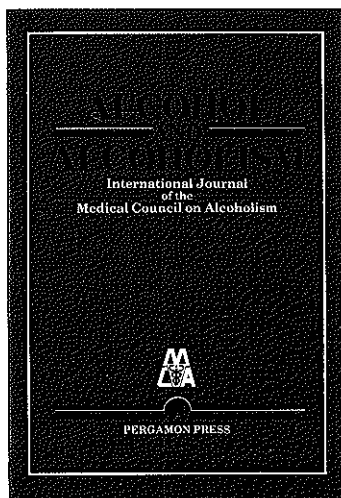
Differential effects of ethanol on the plasma glucose of non-alcoholic light and heavy social drinkers,

**D M CONNELLY** (UK) *et al.*

The binding of acetaldehyde to the active site of ribonuclease: alterations in catalytic activity and effects of phosphate,

**T J MAUCH** (USA) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Excerpta Medica, Current Contents, Index Medicus, MEDLINE, Psychol Abs, PsychINFO, BIOSIS Database, Sci Cit Ind, Biol Abs, Social Abs*



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Editor: **ARNO ROSEMARIN**, Royal Swedish Academy of Sciences, Box 50005, S-104 05 Stockholm, Sweden

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Will climatic changes flood the Netherlands? Effects on agriculture, land use and well-being,

**G P HEKSTRA** (The Netherlands).

Assessment of the impact of the Chernobyl reactor accident on the biota of Swedish streams and lakes, **R P PETERSEN** (Sweden) *et al.*

Chernobyl: the consequences in Europe, **F BARNABY** (UK).

Water resources for food, fiber and forest production,

**D PIMENTEL** (USA).

Management alternatives for increasing dry season base flow in the Miombo woodlands of southern Africa, **J HOUGH** (USA).

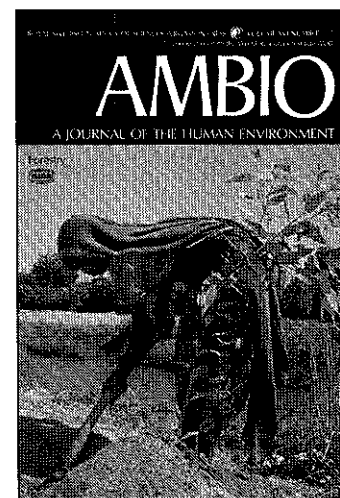
Legal aspects of fisheries: the need for legal training facilities in the South Pacific, **B M TSAMENYI** (Papua New Guinea).

The role of selenium-oxygen interactions in selenium metabolism, **P GARBERG** (Sweden) &

**J HOGBERG** (Sweden).

Water resources in the American west, **M EL-ASHRY** (USA) & **D GIBBONS** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Current Awareness in Biological Sciences (CABS), Cambridge Sci Abstracts, BIOSIS Database, Eng Ind Monthly & Author Index, Aqualine Abstracts*



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*Annals of Nuclear Energy* provides an international medium for the communication of original research, ideas and developments in all areas of the field of nuclear science and technology. Its scope embraces nuclear fuel reserves, fuel cycles and cost, materials, processing, system and component technology (both fission and fusion), design and optimization, direct conversion of nuclear energy sources, environmental control, reactor physics, heat transfer and fluid dynamics, structural analysis, fuel management, future developments, nuclear fuel and safety, and nuclear aerosols.

The journal features a section, "Current Papers in Nuclear Energy", which is comprised of an up-to-date bibliography of important new literature selected from the leading journals serving the nuclear engineering industry, together with details of their source of origin and availability.

## A Selection of Papers

Compact solutions to gaseous flow time and temperature dependant parent and first-daughter fission-product plateout problems, **J W DURKEE Jr** (USA) & **C E LEE** (USA). Neutron multiplication in  $^9\text{Be}$ : a stochastic approach, **A SINHA** (India) *et al.*

Response matrix of symmetric nodes with absorber rods, **Y GOTOH** (Japan).

How good is the estimate of variance in Monte-Carlo computations, **P HILLION** (France) & **G NURDIN** (France).

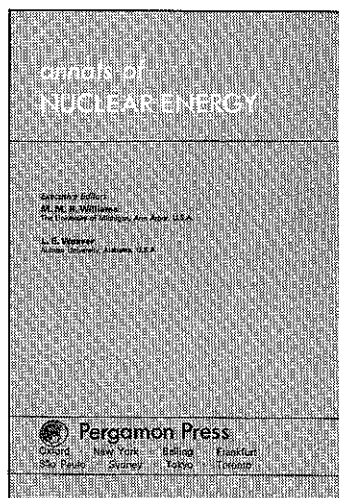
Neutron stochastic transport theory with delayed neutrons, **J L MUNOZ-COBO** (Spain) & **G VEROU** (Spain).

On the neutron scattering transformation matrices, **R OFEK** (Israel).

Stability of a multiple batch quadratic reactivity fuel cycle model, **G T PARKS** (UK).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 15 (12 issues)  
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# THE ANNALS OF OCCUPATIONAL HYGIENE

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Honorary Editor-in-Chief: **JOHN McK ELLISON**, *clo TUC Centenary Institute of Occupational Health, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK*

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Features include refereed original research reports and short communications, and state-of-the-art reviews; also letters to the editor, book reviews, news items, abstracts of patents and reports of meetings.

## A Selection of Papers

Micro-organisms in the air of cotton mills, **J LACEY** (UK) & **M E LACEY** (UK).

Monitoring of carcinogenic risks in tannery workers by means of desquamative lung and bladder cytology and urinary mutagenicity, **A S COSTANTINI** (Italy) *et al.*

Evaluation of solid sorbents for sampling ketones in workroom air, **J -O LEVIN** (Sweden) & **L CARLEBORG** (Sweden).

A higher-flow rate cyclone for determination of respirable dust, **J R COSSEY** (UK) & **N P VAUGHAN** (UK).

A comparison of fibre counting stopping rules in the application of the membrane filter method, **N P CRAWFORD** (UK) *et al.*

Industrial eye protection, **J B DAVEY** (UK).

The Control of Substances Hazardous to Health regulations: an industrialist's view of legislation, **J E WINTERBOTTOM** (UK).

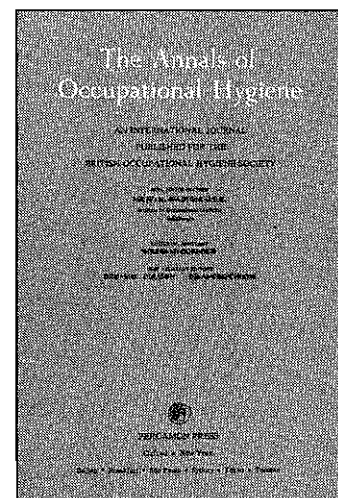
The COSHH regulations: a trade union view, **D GEE** (UK).

Setting recommended limits for occupational exposure, **S J SILK** (UK).

Pathological mechanisms of contact dermatitis, **P K BUXTON** (UK).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Cancer Journals and Serials, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*



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Editors: **A REINBERG**, *Fondation A de Rothschild, 29 rue Manin, 75940 Paris Cedex 19, France*, **M SMOLENSKY**, *The University of Texas Health Science Center, School of Public Health, PO Box 20186, Houston, TX 77225, USA* and **G LABRECQUE**, *Ecole de Pharmacie, Pavillon Vachon, Université Laval, Quebec, G1K 7P4, Canada*

Although the focus of the *Annual Review of Chronopharmacology* is specifically upon biological rhythms and medications in human beings, the scope of the journal is broader. It takes into consideration the many disciplines which contribute to the study of biological rhythms on the one hand and to pharmacology on the other. Particular attention is paid to methodological procedures and findings relating to biological rhythms in the pharmacokinetics and pharmacodynamics of chemical agents, and to mechanisms underlying such phenomena and implications for improved design of drug delivery systems, including technological developments.

The *Annual Review of Chronopharmacology* will publish in each of its odd-numbered volumes the proceedings of the Conferences of Biological Rhythms and Medications which are held every two years. The primary aim of this is to provide a forum to disseminate and discuss emerging concepts and findings within the field of chronopharmacology. The contents of the even-numbered volumes will consist of invited in-depth review, state of the art, articles by noted authors on topics pertinent to chronopharmacology.

## A Selection of Papers

Chronopharmacology of ethanol: acute and chronic administration in the rat, **R P STURTEVANT** (USA) & **S L GARBER** (USA).

Factors affecting circadian variation in responses to psychotropic drugs, **P H REDFERN** (UK) & **P C MOSER** (UK).

Intrinsic rhythms of the pineal gland and associated hormone cycles in body fluids, **R J REITER** (USA).

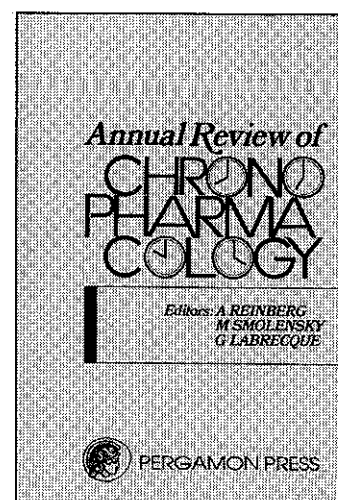
Chronobiologic properties of the alimentary canal affecting xenobiotic absorption, **K J VENER** & **J G MOORE**.

Comparative murine chronotoxicity of anticancer agents and related mechanisms, **F LEVI** (France) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts*

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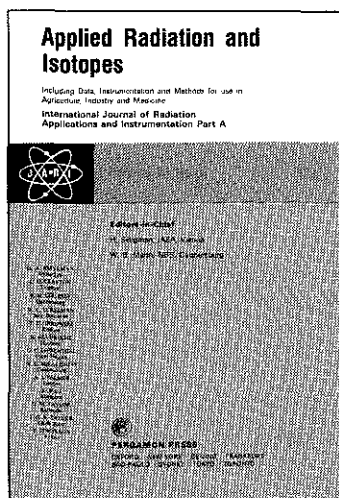
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## A Selection of Papers

Comparative evaluation of electrophilic aromatic iododemetalation techniques for labeling radiopharmaceuticals with iodine-122, **S M MOERLEIN** (USA) *et al.*  
The effect of temperature on fluorescence for liquid scintillators and their solvents, **YOSHIO HOMMA** (Japan) *et al.*  
The influence of the charge and of the tin-ligand ratio on bone uptake of technetium 99 m labelled osteotropic radiopharmaceuticals, **D GOUAILLARDOU** (France) & **M L CONTI** (France).  
The measurement of gas residence time distribution in a pressurized fluidized-bed combustor using  $^{41}\text{Ar}$  as radiotracer, **Z KOLAR** (The Netherlands) *et al.*  
An experimental approach to the analysis of binary alloys by the Rayleigh-Compton backscatter ratio method, **L CONFALONIERI** (Italy) *et al.*

**Indexed/Abstracted in:** *Current Contents, Excerpta Medica, Index Medicus, MEDLINE, CABS, BIOSIS Database, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 39 (12 issues)  
ISSN: 0883-2889 (228)  
Also available as Part A of  
*International Journal of  
Radiation Applications and  
Instrumentation*

# AQUA

The Journal of the International Water Supply Association

Editors: **R URBISTONDO** and **L R BAYS**  
Editorial Enquiries to: *IWSA, 1 Queen Anne's Gate, London SW1H 9BT, UK*

*Aqua* is the journal of the International Water Supply Association. The association is concerned with water supply for domestic, agricultural and industrial purposes and the safeguarding, control and provision of the necessary water resources, including, as may be appropriate, control of pollution and the treatment of waste water. A prime object of the association is to improve relevant knowledge, technical, legal and administrative. The primary aim of *Aqua* is to offer a scientific, technical and managerial forum for those concerned with any part of the field whether research, consultancy, operations or management. Individuals can contribute their knowledge and experience of current thinking and practice and can derive a perspective and knowledge useful and inspiring to them in their work.

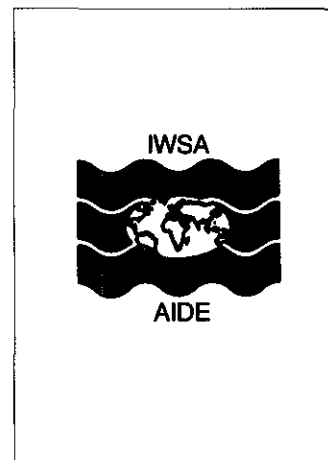
Among the subjects included in the scope of *Aqua* are the following: planning development and management of water resources; water quality and health; water treatment; distribution and maintenance; tariffs and metering; electronics and automation; system optimisation and management; general management and organisation.

## A Selection of Papers

Formulation of models and optimisation of untreated drinking water storage operations of the Méry-sur-Oise plant for the production of drinking water, **C SOUTEYRAND** (France) & **M CALLIBOTTE** (France).  
A strategic measure to improve the quality of the water supply in Shanghai, **SONG REN-YUAN** (China).  
The effect of corrosion control of low alkalinity waters - Norwegian experiences, **E ARCTANDER VIK** (Norway).  
Assesment of chlorine dioxide as a means of limiting the formation of organohalogenated compounds, **R SAVOIR** (Belgium) *et al.*  
The use of public resources for water supply and sanitation projects in developing countries, **J BRISCOE** (USA).

Issued free to members of the International Water Supply Association

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Geo Abstracts, ISP Index, Abstracts, Geology Bib & Index*



**Subscription Information**  
1988: (6 issues)  
ISSN: 0003-7214 (697)  
Combined subscription is  
available with *Water Supply*

# ACCOUNTING, ORGANIZATIONS AND SOCIETY

An International Journal devoted to the Behavioural,  
Organizational & Social Aspects of Accounting

Editor-in-Chief: **ANTHONY G HOPWOOD**, *Department of  
Accounting and Finance, London School of Economics and  
Political Science, Houghton Street, London WC2A 2AE, UK*

*Accounting, Organizations and Society* is a major international journal concerned with all aspects of the relationship between accounting and human behaviour, organizational structures and processes, and the changing social and political environment of the enterprise. Its unique focus covers such topics as: the social role of accounting, social accounting, social audit and accounting for scarce resources; the provision of accounting information to employees and trade unions and the development of participative information systems; processes influencing accounting innovations and the social and political aspects of accounting standard setting; behavioural studies of the users of accounting information; information processing views of organizations, and the relationship between accounting and other information systems and organizational structures and processes; organizational strategies for designing accounting and information systems; human resource accounting; cognitive aspects of accounting and decision-making processes and the behavioural aspects of budgeting, planning and investment appraisal.

## A Selection of Papers

Social environments and organizational accounting,  
**J W MEYER**.

The micro dynamics of a budget-cutting process: modes, models and structures, **R J BOLAND Jr & L R PONDY**.

The role for empirical research in management accounting,  
**R S KAPLAN**.

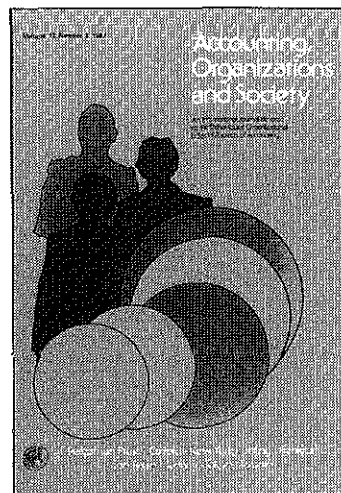
Ambiguity and accounting: the elusive link between information and decision making, **J G MARCH**.

The archeology of accounting systems, **A G HOPWOOD**.

The budgetary process of power and politics, **M A COVALESKI & M W DIRSMITH**.

An economic modeling approach to contingency theory and management control, **J H EVANS et al.**

**Indexed/Abstracted in:** *Current Contents*



## Subscription Information

1988: Volume 13 (6 issues)  
ISSN: 0361-3682 (486)

# ACTA ASTRONAUTICA

Journal of the International Academy of Astronautics

Editor: **JEAN-PIERRE MAREC**, *International Academy of  
Astronautics, BP 62, F-75722, Paris Cedex 15, France*

*Acta Astronautica* publishes original contributions in all fields of engineering including life and social sciences and space technology related to:

- (1) the peaceful scientific exploration of space
- (2) its exploitation for human welfare and progress
- (3) the conception, design, development and operation of space-borne and earth-based systems.

The journal publishes selected proceedings of the Annual IAF Congress in a special volume. In addition to regular issues of contributed papers the journal publishes the Transactions of the Academy and special issues on topics of current interest such as microgravity, space station technology, geostationary orbits, and space economics. Other major subject areas regularly covered include satellite technology, space transportation and communications, space energy, power and propulsion, astrodynamics, extra-terrestrial intelligence and earth observations.

## A Selection of Papers

Translatory motions about long bodies, **E H LEMKE** (GDR).

Fracture mechanics aspects of composite materials,

**H W BERGMANN** (FRG) *et al.*

Damping of composite plate for space structures: prediction and measurement methods, **M MARCHETTI** (Italy) *et al.*

The optimization of earth orbit reentry vehicle configurations,  
**ZHOU QICHENG** (China) & **WANG ZHONGLIAN** (China).

The automatic generation of digital terrain models from satellite images by stereo, **P R COOPER** (Canada) *et al.*

Anthropology and the humanization of space,

**B R FINNEY** (USA).

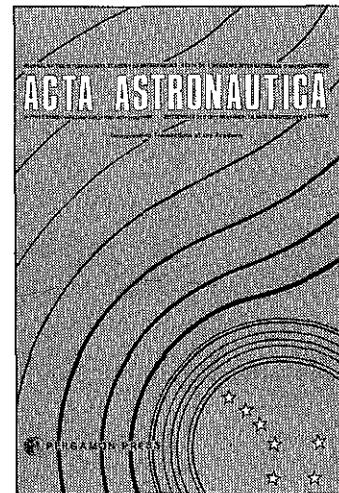
On the accuracy of modelling the dynamics of large space structures, **C M DIARRA** (USA) & **P M BAINUM** (USA).

Mechanism of steady-state burning of composite solid propellants including those with negative pressure-exponents,  
**XU WENGAN** (China) *et al.*

Advanced hybrid rocket motor experiments,

**P A O G KORTING** (The Netherlands) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS Database, Engng Ind Monthly & Author Index, World Aviation Directory, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volumes 17 & 18

(13 issues)

ISSN: 0094-5765 (310)

# ARCHIVES OF ORAL BIOLOGY

A Multidisciplinary Journal in Oral Research

Editors-in-Chief: **D B FERGUSON**, Department of Physiology, Stopford Building, University of Manchester, Manchester, M13 9PT, UK, and **E J KOLLAR**, Department of Oral Biology, University of Connecticut, School of Dental Medicine, Farmington, CT 06032, USA

*Archives of Oral Biology* publishes papers with new research results on every aspect of the oral and dental tissues and bone, over the whole range of vertebrates. The journal covers advances in the anatomy, palaeontology, physiology, chemistry, physics, pathology, immunology, bacteriology, epidemiology and genetics of these tissues. A special section, "Current Papers in Oral Biology", surveys the literature and provides readers with the titles, authors, and authors' addresses of relevant papers. The papers are subdivided into 11 categories for ease of reference.

## A Selection of Papers

The mineral solubility of human tooth roots,

**P M M HOPPENBROUWERS** *et al.*

The effect of excision of the root apex on the intrusive mobility of anterior teeth in adult monkeys (*Macaca fascicularis*),

**D C A PICTON & H M PICTON.**

Effect of aluminium on mineralization of rat third molar *in vitro*,

**T A STORINO** *et al.*

Antibody response and dental caries in the bacterium

*Streptococcus* -mono-associated, caries-resistant and caries-susceptible rats, **B A PERI.**

The effects of digastric muscle tenotomy on jaw opening of the rabbit, **W A WELJS & Z F MUHL.**

Long-term effect of loading on the fibroblast population of the periodontal ligament in the rat lower incisor,

**Y MICHAELI** *et al.*

Inhibition of human neutrophil phagocytosis and intracellular killing of yeast cells by fluoride, **W L GABLER & N HUNTER.**

Mechanisms of tooth eruption in a computer-generated analysis of functional jaw deformations in man, **T R KATONA** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, BIOSIS Database, CABS*



**Subscription Information**  
1988: Volume 33 (12 issues)  
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# THE ARTS IN PSYCHOTHERAPY

Editor: **DAVID READ JOHNSON** PhD RDT, Assistant Clinical Professor, Department of Psychiatry, Yale University; Clinical Psychologist, VA Medical Center, West Spring Street, West Haven, CT 06515, USA

Managing Editor: **SYLVIA M HALPERN**, 20 Ridgcrest East, Scarsdale, NY 10583, USA

*The Arts in Psychotherapy* is a quarterly, international journal for professionals in the fields of mental health and education. The journal publishes articles (including illustrations) by art, dance/movement, music, poetry and drama psychotherapists, as well as psychiatrists and psychologists, that reflect the theory and practice of these disciplines. There are no restrictions on philosophical orientation or application. The journal reports news and comments on national and international conferences, and provides current educational information relevant to the creative arts in therapy. The journal also includes book reviews, invites letters to the editors and welcomes dialogue between contributors.

## A Selection of Papers

The process of individuation in dance-movement therapy with schizophrenic patients, **S L SANDEL.**

Training the drama therapist - a four-part model, **R J LANDY.**

Literary modes in the analytical setting, **L H ROLOFF.**

Music as a stimulus for creative fantasy in group psychotherapy with young adolescents, **N F WELLS & T STEVENS.**

The graphic representation of regression in an Alzheimer's disease patient, **J WALD.**

Perspective: establishing the creative arts therapies as an independent profession, **D READ JOHNSON.**

In pursuit of objectivity: the development of a multi-modal evaluation instrument, **C E NAITOVE.**

Music play therapy: an integrated approach, **J J MORENO.**

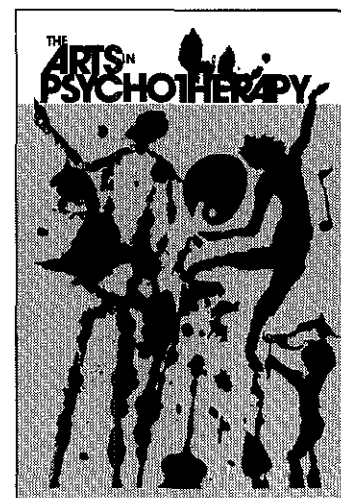
Imagination as mediator between inner and outer reality, **R GORDON.**

Drama therapy and adolescent resistance, **R EMUNAH.**

Incest markers in children's artwork, **F W COHEN & R E PHELPS.**

Symbolic expression in post-traumatic stress disorder: Vietnam combat veterans in art therapy, **D GOLUB.**

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Citation Index, Excerpta Medica.*



**Subscription Information**  
1988: Volume 15 (4 issues)  
ISSN: 0197-4556 (833)  
(Formerly published by  
ANKHO International Inc.)

## ACTA METALLURGICA

Published on behalf of Acta Metallurgica Inc.

Editor: **MICHAEL F ASHBY** FRS, *University Engineering Laboratories, University of Cambridge, Trumpington Street, Cambridge CB2 1PZ, UK*

*Acta Metallurgica* publishes original papers and occasional critical reviews which advance the understanding of properties of materials: metals and alloys, ceramics, high polymers and glasses in terms of fundamental particles, forces and energies. Emphasis is placed on those aspects of the science of materials that are concerned with the relationship between the structure of solids and their properties (mechanical, chemical, electrical, magnetic and optical); the thermodynamics, kinetics and mechanisms of processes occurring within solids; experiments and models which help in understanding the macroscopic properties of materials in terms of microscopic mechanisms; and with original work which advances the understanding of engineering materials.

### A Selection of Papers

Young's modulus and thermal expansion of pure iron -cementite alloy castings, **A KAGAWA** (Japan) *et al.*

Creep of TiN dispersion hardened 20%Cr-25%Ni stainless steel below the transition stress, **R C ECOB** (UK) & **H E EVANS** (UK).

Geometrical models for grain boundary structures in L2<sub>0</sub> and L1<sub>2</sub> ordered alloys - on the twist boundaries, **T TAKASUGI** (Japan) & **O IZUMI** (Japan).

Mouillabilité de l'alumine monocristalline par l'or et l'étain entre leur point de fusion et 1673 K, **I RIVOLLET** (France) *et al.*

On the additivity of precipitation and solid solution hardening in under- and over-aged single crystals of (CuAu)Co, **N BÜTTNER** (FRG) *et al.*

Cyclic deformation of Al-single crystals at low constant plastic strain amplitudes, **O VORREN** (Norway) & **N RYUM** (Norway).

The electrochemical response of copper single crystals to corrosion-fatigue in an aqueous, oxide-forming environment, **S ORTNER** (USA) *et al.*

A method to evaluate the critical hydrogen concentration for hydrogen-induced crack propagation, **H J MAIER** (FRG) *et al.*

Effects of hydrogen and deuterium on the temperature dependence of the shear constants *C* of vanadium single crystals, **H KOJIMA** (Japan) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*

## ACTA METEOROLOGICA SINICA

Edited by the Chinese Meteorological Society

Executive Editor: **ZHOU SHIJIAN**, *China Meteorological Press, 46 Baishiqiao Road, West Suburb, Beijing, China*

*Acta Meteorologica Sinica* provides comprehensive coverage of Chinese studies and research on all aspects of atmospheric sciences. Founded in 1924, *Acta Meteorologica Sinica* publishes theoretical and methodological articles on all aspects of atmospheric sciences, such as meteorology, climatology, synoptic meteorology, atmospheric physics, chemistry and technology. Also contained are reviews and information on symposiums and notes for timely reporting of recent significant findings.

### A Selection of Papers

The oscillation of certain zonal mean characteristics of motion on a spheric Earth's atmosphere, **XIE YIBING** (China).

Symmetric and asymmetric motions in the barotropic filtered model atmosphere, **LIAO DONGXIAN** (China) & **ZOU XIAOLEI** (China).

The adjustment of wind to Ekman flow within the planetary boundary layer, **XU YINZI** (China) &

**WU RONGSHENG** (China).

An objective scheme for long-range forecasts, **ZHANG JIJIA** (China) *et al.*

Predictability levels of monthly forecast based on time-averaged ocean/atmosphere variables - a naturally occurring analogue study, **QIU CHONGJIAN** (China) & **CHOU JIFAN** (China).

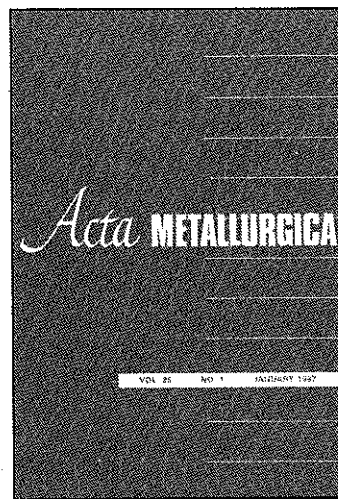
The relationship between large-scale low-level jet over East Asia and monsoon as well as cross-equatorial currents in summer, **SUN SHUQING** (China).

Energy mechanisms in the splitting and rebuilding processes of polar vortex at 100 hPa, **ZHANG PEIZHONG** (China) & **MIAO JINHAI** (China).

Variations of precipitation over the equatorial Pacific and El Niño events, **WANG SHAOWU** (China) *et al.*

A numerical simulation of wind-driven baroclinic ocean circulation, **XING RUNAN** (China).

Numerical simulation of the atmospheric mixed layer, **WU HUIDING** (China) & **DONG CAIYON** (China).



### Subscription Information

1988: Volume 36 (12 issues)

ISSN: 0001-6160 (221)

### Subscription Information

1988: Volume 2 (4 issues)

ISSN: 0894-0525 (842)

# BEHAVIORAL ASSESSMENT

Editor: **JOHN D CONE**, *Department of Psychology, West Virginia University, Morgantown WV 26506-6040, USA*

*Behavioral Assessment* is an interdisciplinary journal publishing original contributions in the areas of assessment, design, methodology, statistics, measurement and program evaluation, regardless of population or setting. *Behavioral Assessment* publishes:

- (a) reports of original research that employ experimental, correlational, or simulation methodology and utilize either within- or between-subjects design;
- (b) review or discussion articles that are based on experimental data and that have theoretical, conceptual, or applied implications; and
- (c) case studies which emphasize measurement or design.

## A Selection of Papers

Observational assessment for planning and evaluating educational transition: an initial analysis of template matching,

**T S HOIER** *et al.*

Classifying social situations: a comparison of five methods,

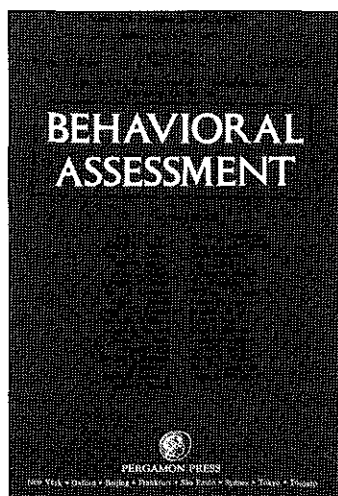
**D G SCHLUNDT & R M McFALL.**

The homework problem checklist: assessing children's homework difficulties, **K M ANESKO** *et al.*

The validity of laboratory assessments of children's socially competent behavior in specific situations, **G S PETTIT** *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Current Awareness in Biological Sciences (CABS), BIOSIS Database, Psychol Abstr, PsyclINFO, Beh Med Abstr, Amer J of Fam Therapy, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 10 (4 issues)  
ISSN: 0191-5401 (501)

# BEHAVIOUR CHANGE

Journal of the Australian Behaviour Modification Association

Editor: **NEVILLE KING**, *Phillip Institute of Technology, Victoria, Australia*

The Australian Behaviour Modification Association (ABMA) is a multi-disciplinary professional society. The aims of the Association are:

- (a) to organise continuing education and training in the principles and practice of behaviour modification;
- (b) to publish and disseminate information to members about developments in behaviour modification in Australia and other countries;
- (c) to educate the community in the principles and ethical practice of behaviour modification;
- (d) to liaise and consult with other persons or organisations in the teaching and practice of behaviour modification;
- (e) to promote the ethical practice of behaviour modification by members;
- (f) to organise or assist in the organisation of an annual National Conference on Behaviour Modification.

## A Selection of Papers

A social history of behaviour modification in Australia,

**R C WINKLER & L KRASNER.**

Heart rate and skin conductance as measures of worrying,

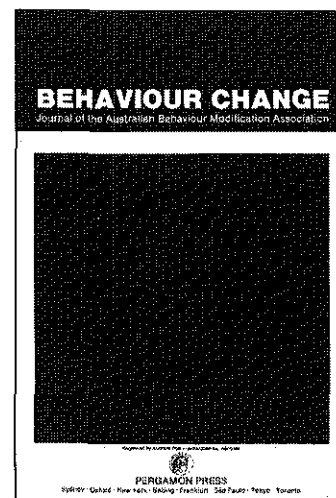
**J K DUA & D A KING.**

Researching functional relations in behaviour analysis and therapy, **L ARCO.**

School to work transition: behavioural counselling approaches to the problem of finding jobs for unemployed adolescents,

**G C MURPHY & J A ATHANASOU.**

**Indexed/Abstracted in:** *Australian Education Index, Behavioural Abstracts, Excerpta Medica, Psychological Abstracts*



**Subscription Information**  
1988: Volume 5 (4 issues)  
ISSN: 0813-4839

## New Editors

# ACTA ZOOLOGICA

International Journal for Zoology published on behalf of the Royal Swedish Academy of Sciences and the Royal Danish Academy of Sciences and Letters

Editor: **CLAUS NIELSEN**, *Zoological Museum, Universitetsparken 15, DK-2100 Copenhagen, Denmark*  
Assistant Editor: **ASE JASPERSEN**, *Zoological Museum, Universitetsparken 15, DK-2100 Copenhagen, Denmark*

*Acta Zoologica*, founded in 1920, is an international journal for zoology, publishing original contributions in the fields of animal organisation, structure and function. Authors of papers with mainly systematic or evolutionary content are advised to submit their contributions to the cooperating journal *Zoologica Scripta*.

### A Selection of Papers

*In vivo* observations on a specialized microvasculature, the primary and secondary vessels in fishes,

**J F STEFFENSEN** (Denmark) *et al.*

The wheel organ and Hatschek's groove in the lancelet, *Branchiostoma lanceolatum* (Cephalochordata),

**K SAHLIN** (Sweden) & **R OLSSON** (Sweden).

A scanning electron microscope study on the internal structure of the peritreme of the female mite *Varroa jacobsoni* (Oudemans, 1904), **T P LIU** (Canada).

Phagocytic cells in the peripheral blood of the dogfish *Scyliorhinus canicula* L.I. *In vitro* studies,

**N PARISH** (UK) *et al.*

Phagocytic cells in the peripheral blood of the dogfish *Scyliorhinus canicula* L.I.I. *In vivo* studies, **N PARISH** (UK) *et al.*

A rostral sensory mechanism in *Oikopleura dioica* (Appendicularia), **T BOLLNER** (Sweden) *et al.*

The different vascular patterns of slime glands in the hagfishes, *Muxine glutinosa* Linnaeus and *Eptatretus stouti* Lockington. A scanning electron microscope study of vascular corrosion casts,

**A LAMETSCHWANDTNER** (Austria) *et al.*

Self-inhibition of egg laying in *Physa* sp. (a freshwater pulmonate), **M ASGHAR CHAUDRY** (Saudi Arabia).

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Contents, CABS, BIOSIS Database*

# ACUPUNCTURE & ELECTROTHERAPEUTICS RESEARCH

The Official Journal of the American Society of Acupuncture and the International College of Acupuncture and Electro-Therapeutics

Editor: **YOSHIAKI OMURA MD, SD, FACA, FICAE**, *Director of Medical Research, Heart Disease Research Foundation, 800 Riverside Drive (8-1), New York, NY 10032, USA*

This journal provides an international forum for the exchange of ideas and promotion of basic and clinical research in acupuncture, electro-therapeutics, and related fields. It aims at providing a better understanding of both the beneficial and adverse effects of these treatments, and its contributions strive to improve existing methods of diagnosis, prognosis, treatment and prevention of diseases in both Western and Oriental medicine.

### A Selection of Papers

Hypoalgesic effect of laser photobiostimulation shown by rat tail flick test, **R PONNUDURAI** (USA) *et al.*

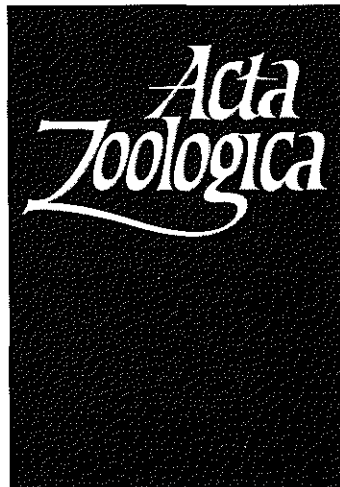
Successful treatment of itching and atopic eczema by transcutaneous nerve stimulation, **H BJORNA** (Norway) & **B KAADA** (Norway).

A possible physiological basis for effectiveness of acupuncture against psychosomatic disorders, **S FREED** (USA).

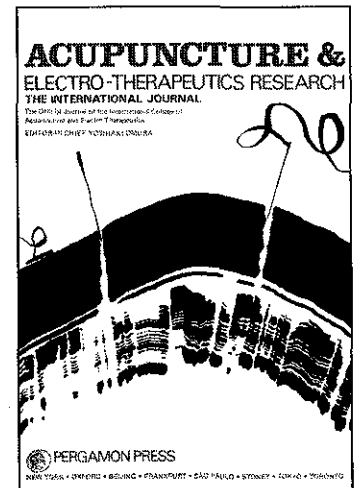
Long-term treatment of chronic pain with acupuncture. Part II, **S JUNNILA** (Finland).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Clinical Medicine, CABS, Sci Cit Ind, BIOSIS Database, Index Medicus, MEDLINE, Excerpta Medica, Psychol Abstr, PsycINFO, Brit Med, Chem Abstr, Engng Ind Monthly and Author Index, COMPENDEX, Bioeng Abstr, Ind to Dental Lit, Dental Abstr, International Bibliographic der Zeitschriftenliteratur*



**Subscription Information**  
1988: Volume 69 (4 issues)  
0001-0001/88/0000-0000/0000



**Subscription Information**  
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# BIOCHEMICAL PHARMACOLOGY

Executive Editors: **P ALEXANDER**, CRC Medical Oncology Unit, Centre Block CF 99, Southampton General Hospital, Southampton SO9 4XY, UK, **J GIELEN**, Université de Liège, Laboratoire de Chimie Médicale, Institut de Pathologie, B-4000 Sart-Tilman par Liège 1, Belgium and **A C SARTORELLI**, Department of Pharmacology, Yale University School of Medicine, Sterling Hall of Medicine, 333 Cedar Street, New Haven, CT 06510, USA

*Biochemical Pharmacology* provides a forum for the publication of original research papers, short communications, rapid communications and invited commentaries. The journal is devoted to research into the development of biologically active substances and their modes of action at the biochemical and subcellular levels. It reports on studies on all types of cells - plant, microorganism and animal - where emphasis is placed on biochemical pharmacology, including chemotherapy. New information is also conveyed on all phases of pure and applied cellular and molecular pharmacology, including organochemical, physicochemical, biochemical and cytological research.

## A Selection of Papers

Influence of veratridine on <sup>3</sup>H-L-quinuclidinyl benzilate (<sup>3</sup>HQNB) binding in mouse hindbrain, **J E MACK** (USA) & **J C MATTHEWS** (USA).

Enhancement of binding of the dihydropyridine calcium antagonist PN200-110 to human myometrial sarcolemma by the heterologous calcium antagonist diltiazem,

**A M GOLICHOWSKI** (USA) & **D Y TZENG** (USA).

Adrenal catecholamine metabolism and myocardial adrenergic receptors in streptozotocin diabetic rats,

**M S BITAR** (USA) *et al.*

Binding of soman antidotes to acetylcholine receptors,

**C BROOMFIELD** (USA) *et al.*

Effect of inhalation anesthetics on antipyrine pharmacokinetics of mice, **R A VAN DYKE** (USA) *et al.*

Stabilization of the reduced halocarbon-cytochrome P-450 complex of halothane by N-alkanes, **M T BAKER** (USA) *et al.*

Absorption of protein via the intestinal wall, **A ZIV** (Israel) *et al.*

Species differences in the hepatotoxicity of paracetamol are due to differences in the rate of conversion to its cytotoxic metabolite, **L B G TEE** (UK) *et al.*

Sex difference in responsiveness to aztreonam of monooxygenase system in liver microsomes from rats, **T HORIE** (Japan) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*

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453	Enhancement of binding of the dihydropyridine calcium antagonist PN200-110 to human myometrial sarcolemma by the heterologous calcium antagonist diltiazem, <b>A M GOLICHOWSKI</b> (USA) & <b>D Y TZENG</b> (USA)
459	Adrenal catecholamine metabolism and myocardial adrenergic receptors in streptozotocin diabetic rats, <b>M S BITAR</b> (USA) <i>et al.</i>
465	Binding of soman antidotes to acetylcholine receptors, <b>C BROOMFIELD</b> (USA) <i>et al.</i>
471	Effect of inhalation anesthetics on antipyrine pharmacokinetics of mice, <b>R A VAN DYKE</b> (USA) <i>et al.</i>
477	Stabilization of the reduced halocarbon-cytochrome P-450 complex of halothane by N-alkanes, <b>M T BAKER</b> (USA) <i>et al.</i>
483	Absorption of protein via the intestinal wall, <b>A ZIV</b> (Israel) <i>et al.</i>
489	Species differences in the hepatotoxicity of paracetamol are due to differences in the rate of conversion to its cytotoxic metabolite, <b>L B G TEE</b> (UK) <i>et al.</i>
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507	Enhancement of binding of the dihydropyridine calcium antagonist PN200-110 to human myometrial sarcolemma by the heterologous calcium antagonist diltiazem, <b>A M GOLICHOWSKI</b> (USA) & <b>D Y TZENG</b> (USA)
513	Adrenal catecholamine metabolism and myocardial adrenergic receptors in streptozotocin diabetic rats, <b>M S BITAR</b> (USA) <i>et al.</i>
519	Binding of soman antidotes to acetylcholine receptors, <b>C BROOMFIELD</b> (USA) <i>et al.</i>
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537	Absorption of protein via the intestinal wall, <b>A ZIV</b> (Israel) <i>et al.</i>
543	Species differences in the hepatotoxicity of paracetamol are due to differences in the rate of conversion to its cytotoxic metabolite, <b>L B G TEE</b> (UK) <i>et al.</i>
549	Sex difference in responsiveness to aztreonam of monooxygenase system in liver microsomes from rats, <b>T HORIE</b> (Japan) <i>et al.</i>
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**Subscription Information**  
1988: Volume 37 (24 issues)  
ISSN: 0006-2952 (252)

**Pergamon Press**  
Oxford New York  
Frankfurt Harlingen São Paulo Sydney Tokyo Toronto

# BIOCHEMICAL SYSTEMATICS AND ECOLOGY

Executive Editors: (Zoological Aspects): **ERNST SCHOFFENIELS**, Laboratoire de Biochimie, Université de Liège, Place Delcours 17, 4000 Liège, Belgium; and (Botanical Aspects): **MICK RICHARDSON**, Harding Laboratories, New York Botanic Garden, Bronx, NY 10458, USA

*Biochemical Systematics and Ecology* is devoted to the publication of original articles and occasional invited reviews on the application of biochemistry and chemistry to systematic problems in biology.

All classes of organisms susceptible to chemical and biochemical study are covered, from bacteria to higher plants and animals including fossil forms.

Any type of chemical or biochemical information may be used in demonstrating their phyletic or other interrelationships, including the elucidation of biosynthetic pathways, feedback control, hybridization and other techniques of molecular biology and the distribution of discrete chemical compounds.

Systematics is interpreted in the widest sense to include studies on variation in populations, classification of living organisms, interspecific relationships and phylogenetic affinities of major taxa.

## A Selection of Papers

Prenylated flavonols and their distribution in flowering plants, **D ADINARAYANA** (India) & **P RAMACHANDRAIAH** (India).

Variation in paralytic shellfish toxin composition within the *Protogonyaulax tamarensis/catenella* species complex; red tide dinoflagellates, **A D CEMBELLA** (Canada) *et al.*

Indole alkaloid evolution in *Aspidosperma*,

**V DA S BOLZANI** (Brazil) *et al.*

Chemical analysis and comparison of subspecies of *Chrysothamnus nauseosus* and other related species,

**D F HEGERHORST** (USA) *et al.*

Seasonal variation in the volatile leaf oils of two *Eucalyptus* species, **D SIMMONS** (Australia) & **R F PARSONS** (Australia).

Stability of two-locus 'coacting' cline in *Silene latiflora*: a model study, **J HERINGA** (The Netherlands) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database*

**Subscription Information**  
1988: Volume 16 (8 issues)  
ISSN: 0305-1978 (364)

biochemical systematics and ecology

**Pergamon Press**  
OXFORD NEW YORK BEIJING  
FRANKFURT SAO PAULO SYDNEY TOKYO TORONTO

# ADVANCES IN BEHAVIOUR RESEARCH AND THERAPY

An International Review Journal

Editors-in-Chief: **S RACHMAN**, *Department of Psychology, University of British Columbia, Vancouver BC, V6T 1Y7, Canada* and **T WILSON**, *Graduate School of Applied and Professional Psychology, Rutgers University, Piscataway NJ 08854, USA*

This journal will publish extended reports and reviews of research in the theory and practice of behaviour therapy. The aim is to encourage and facilitate the dissemination of new ideas, findings and formulations in the field. In particular the editors hope to provide research and clinical workers with the opportunity to describe progress and convey their ideas in depth.

The journal will publish papers that critically review a topic, present a systematic theoretical analysis or any integrated series of experiments, or a combination of these three types of presentation. Preference will be given to papers that attempt to relate the theory, methods and results of experimental psychology to behavioural and emotional problems and their modification.

## A Selection of Papers

Some limitations of the attributional learned helplessness model on understanding effects of (non-) contingency: a controlled study in Dutch adolescents, **F A ALBERSNAGEL** *et al.*

Psychophysiological individuality: a pattern analytic approach to personality research and psychosomatic medicine, **J FAHRENBERG**.

Cognitive aids in teaching and treating, **T L ROSENTHAL** & **A DOWNS**.

Bulimia: a review of its symptomatology and treatment, **J S MIZES**.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, CABS, PsychINFO, BIOSIS Database, Psychol.Abstr PASCAL-CNRS Database*

# ADVANCES IN ENZYME REGULATION

Editor: **GEORGE WEBER**, *Laboratory for Experimental Oncology, Indiana University School of Medicine, Indianapolis, IN 46223, USA*

The success of *Advances in Enzyme Regulation* is reflected in the appreciative reception of the series, and emphasizes the need for a source of information and inspiration of this kind. The series concentrates on subjects which have reached the stage of productive summarization and critical evaluation in the light of new results. Topics covered include metabolic regulation, inborn errors of metabolism, metabolic diseases, diabetes and cancer.

## A Selection of Papers

Substrate-inhibitor cooperative interactions with microbial dihydrofolate reductases, **G H HITCHINGS** (USA) *et al.*  
Platinum-folate compounds: synthesis, properties and biological activity, **F M HUENNEKENS** (USA) *et al.*

Specific multisubstrate adduct inhibitors of aminopropyltransferases and their effect on polyamine biosynthesis in cultural cells, **J K COWARD** (USA) & **A E PEGG** (USA).

Biochemical aspects of the phosphoinositide signalling system with special reference to the formation of inositol cyclic phosphates and arachidonic acid metabolism on agonist stimulation, **L E HOKIN** (USA) *et al.*

The role of folylpolyglutamate synthetase and  $\gamma$ -glutamyl hydrolase in altering cellular folyl- and antifolylpolyglutamates, **J GALIVAN** (USA) *et al.*

Folylpolyglutamates as substrates and inhibitors of folate-dependent enzymes, **R G MATTHEWS** (USA) *et al.*

Hormones, glutathione status and protein S-thiolation, **H SIES** (FRG) *et al.*

Studies on biomodulators of glucocorticoid actions: the nature and the modes of actions of glucocorticoid potency amplifiers, **N KATUNUMA** (Japan) & **H KIDO** (Japan).

Leukotriene C<sub>4</sub> metabolism by hepatoma cells and liver, **D KEPPLER** (FRG) *et al.*

The polycation-stimulated protein phosphatases: regulation and specificity, **W MERLEVEDE** (Belgium) *et al.*

Unresolved issues in the study of mammalian ribonucleotide reductase, **J G CORY** (USA)

Modulation of growth, differentiation and carcinogenesis by dehydroepiandrosterone, **P TALALAY** (USA) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Index Medicus, MEDLINE, MEDLARS, BIOSIS Database*

## Advances in Behaviour Research and Therapy

Editors  
**Professor S. Rachman**  
*Department of Psychology  
University of British Columbia  
Vancouver, BC  
CANADA*

**Professor T. Wilson**  
*Graduate School of Applied  
and Professional Psychology  
Rutgers University  
Piscataway  
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This journal is indexed/abstracted in Current Contents, CABS, Psychol. Abstr., PsychINFO and BIOSIS Database.

## Advances in ENZYME REGULATION

## Subscription Information

1988: Volume 27  
(1 hardbound issue)  
ISSN: 0065-2571 (427)

## Subscription Information

1988: Volume 10 (4 issues)  
ISSN: 0146-6402 (458)

# BIORHEOLOGY

The Official Journal of the International Society of Biorheology  
A Companion Journal of *Clinical Hemorheology*

Editors-in-Chief: **ALFRED L COPLEY**, *Laboratory of Biorheology, Polytechnic University, 333 Jay Street, Brooklyn, NY 11201, USA* and **ALEXANDER SILBERBERG**, *Polymer Department, The Weizmann Institute of Science, Rehovot, Israel*

*Biorheology* comprises the study of deformation and flow of biological systems or of materials directly derived from living organisms. Such problems have assumed an increasing importance in physiology, medicine, surgery, botany and other biological disciplines. The journal publishes work concerned with processes in the living organisms (*in vivo*) and with materials originating from the organisms (extracorporeal). The inter-relationship is stressed between rheological properties of biological systems and their various structural aspects.

## A Selection of Papers

Electrostatic free energy and spontaneous curvature of spherical charged layered membrane, **D LERCHE** *et al.*

Viscoelastic properties of whole blood. Influence of fast sedimenting red blood cell aggregates, **D SCHNEDITZ** *et al.*

Flow characteristics of red cell containing fluids through pores.

The effect of filter plugging, a mathematical model,

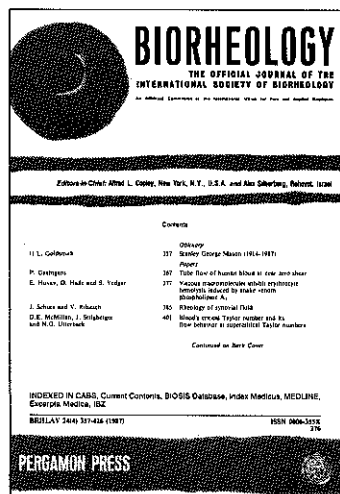
**R CRAWFORD** *et al.*

Transvascular exchange of fluid and plasma proteins,

**H PAPENFUSS & J GROSS.**

Dynamics of membrane structure of frog erythrocyte ghosts measured with a nanosecond fluorometer, **T KOYAMA** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, CABS, BIOSIS Database, MEDLINE, MEDLARS, Excerpta Medica, IBZ, INSPEC*



**Subscription Information**  
1988: Volume 25 (6 issues)  
ISSN: 0006-355X (276)

# BIOTECHNOLOGY ADVANCES

Research Reviews and Patent Abstracts

Executive Editor: **M MOO-YOUNG**, *Industrial Biotechnology Centre, University of Waterloo, Ontario N2L 3G1, Canada*  
Editors: **J D BU'LOCK**, *Department of Chemistry, University of Manchester, Manchester M13 9PL, UK*, **C L COONEY**, *Department of Chemical Engineering, MIT, Room 16-229, Cambridge, MA 02139, USA* and **B R GLICK**, *Department of Biology, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada*

In this review journal, biotechnology is viewed in a comprehensive context: a multidisciplinary field in which biological systems are developed and/or used for the provision of commercial goods or services. The journal is devoted to all areas of biotechnology including relevant aspects of its disciplinary underpinnings in biology, chemistry and engineering. The primary purpose is to provide regular, rapid but authoritative reviews of important advances in this field for students, researchers, managers and others in industry, government and academia. A timely series of research review papers, patent abstracts and summaries of special government reports on the principles and practices of biotechnology will be covered regularly. The patent abstracts and government report summaries are selected from various databases by the executive editor. The review papers are generated from refereed manuscript submissions.

## A Selection of Papers

Fed-batch culture technology, **B J MINIHAINE** (UK) & **D E BROWN** (UK).

Fermented foods, feeds, and beverages,

**K H STEINKRAUS** (USA).

Microbial polysaccharides with actual potential industrial applications, **F PAUL** (France) *et al.*

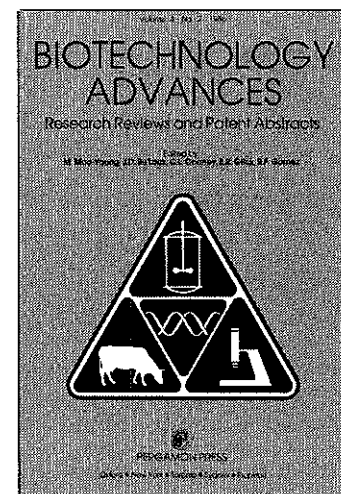
Environmental implications of recombinant DNA technology, **B R GLICK** (Canada) & **Y C SKOF** (Canada).

Production of plant secondary metabolites without plants: a perspective, **B E ELLIS** (Canada).

Use of synthetic DNA in expression of foreign proteins,

**H M HSIUNG** (USA).

**Indexed/Abstracted in:** *Current Advances in Biological Sciences (CABS), Chemical Abstracts, BIOSIS Database*



**Subscription Information**  
1988: Volume 6 (4 issues)  
ISSN: 0734-9750 (701)

## ADVANCES IN THE BIOSCIENCES

General Editors: **J PRICE** and **A J COLBORNE**, *Pergamon Press, Headington Hill Hall, Oxford OX3 0BW, UK*

This review series offers a comprehensive collection of leading scientists' latest experimental work. It makes available the papers and discussion contributions made at symposia and workshop conferences. The latest developments and directions in biological research are outlined and offer the scientist engaged in experimental study valuable insight into the subjects, methods and results of the work being done by leading research teams. *Advances in the Biosciences* is intended for pharmacologists, biochemists, neuroscientists, biologists and all scientists engaged in experimental and clinical studies in biology and medicine.

### Latest Volumes in the Series

- Recent trends in medical genetics,  
Editors: **K M MARIMUTHU** & **P M GOPINATH**.  
Germ cell tumours - II, Editors: **W G JONES** *et al.*  
Oxygen transport in red blood cells, Editor: **C NICOLAU**.  
The pineal gland: endocrine aspects, Editors: **G M BROWN** & **S D WAINWRIGHT**.  
Oro-facial pain and neuromuscular dysfunction,  
Editors: **I KLINEBERG** & **B SESSLE**.  
Frontiers in histamine research, Editors: **C R GANELLIN** & **J C SCHWARTZ**.  
Pathophysiological aspects of cancer epidemiology,  
Editors: **G MATHE** & **P REIZENSTEIN**.  
Adaptive processes in visual and oculomotor systems,  
Editors: **E L KELLER** & **D S ZEE**.  
Brain tumors: biopathology and therapy,  
Editors: **M A GEROSA** *et al.*  
Learning and memory: mechanisms of information storage in the nervous system, Editor: **H MATTHIES**.  
Disorders of eating behaviour: a psychoneuroendocrine approach,  
Editors: **E FERRARI** & **F BRAMBILLA**.  
Dynamic properties of glia cells - II. Cellular and molecular aspects, Editors: **T GRISAR** *et al.*  
Advances in age pigment research, Editors: **E A TOTARO** *et al.*  
Research in retinitis pigmentosa, Editors: **E ZRENNER** *et al.*  
Retinitis pigmentosa: patients' fight for sight,  
Editors: **F BRUNSMANN** & **R VON GIZYCKI**.  
Peptides and proteases: recent advances, Editors: **A BARTH** & **R L SCHOWEN**.  
The biology of phagocytes in health and disease,  
Editors: **C MAURI** *et al.*  
Red blood cells as carriers for drugs: potential therapeutic applications, Editors: **C ROPARS** *et al.*  
Immunomodulators and non-specific host defence mechanisms against microbial infections, Editors: **K N MASIHI** & **W LANGE**.  
Pituitary adenomas, Editor: **A M LANDOLT**.

### Subscription Information

1988: Volumes 65-70  
(6 hardbound volumes)  
ISSN: 0065-2441 (1988)

## ADVANCES IN THE BIOSCIENCES

## Newly Acquired in 1987

## ALCOHOL

(incorporating *Alcohol and Drug Research*)

An International Biomedical Journal

Editor: **ROBERT D MYERS**, *Department of Psychiatry and Pharmacology, University of East Carolina, School of Medicine, Greenville, NC 27858, USA*

Of immense value to both practitioners and basic scientists alike, *Alcohol* is the major international journal devoted solely to biomedical research on alcohol and alcoholism. Appearing bi-monthly, *Alcohol* features original research articles, reviews, theoretical papers, and rapid communications. A new section, "Reviews and Comments", is devoted to brief reviews of recent literature and summaries of presentations at major meetings.

The journal is dedicated to excellent in-depth reporting of the burgeoning literature on alcoholism as a disease state. Topics in this regard include:

- Biomedical factors in the etiology of alcoholism
- Biological and biochemical markers in the identification of alcoholism
- New drugs and chemotherapeutic strategies in the treatment of uncontrolled drinking, alcohol withdrawal, and psychological problems associated with the disease
- Fetal alcohol syndrome

### A Selection of Papers

- Individual difference in urinary excretion of salsolinol in alcoholic patients, **J ADACHI** *et al.*  
Frequencies of glyoxalase I phenotypes as biological markers in chronic alcoholism, **M LEDIG** *et al.*  
<sup>13</sup>C-ethanol and <sup>13</sup>C-acetate breath tests in normal and aldehyde dehydrogenase deficient individuals, **W D LEHMANN** *et al.*  
Concordant alcohol and marijuana use in women, **B W LEX** *et al.*  
Hopelessness in the alcoholic patient, **T F McGOVERN**.  
The trauma questionnaire for detecting alcohol abuse: limiting factors, **M G MONTEIRO** *et al.*  
Methadone, pentobarbital, pimozide and ethanol-intake, **P J MUDAR** *et al.*

The last regular issue of *Alcohol and Drug Research* was Volume 7, Number 5/6 (1986-1987).

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Science Citation Index, ISI/BioMed, Excerpta Medica, CABS, Index Medicus, MEDLINE, MEDLARS, BIOSIS Database*

### Subscription Information

1988: Volume 5 (6 issues)  
ISSN: 0741-8329 (828)  
Formerly published by  
ANKHO International Inc.

## ALCOHOL

AN INTERNATIONAL BIOMEDICAL JOURNAL



# BRITISH DEFENCE DIRECTORY

(incorporating *Defence Attaché* as an editorial supplement)

Editor: Air Commodore **D H SUTTON** CBE

"...extremely useful, both in my liaison with MOD and also in briefing senior members of Lucas Aerospace Industries."

R F MUDGE, Marketing Manager for Lucas Aerospace Ltd

"...previous editions of the Directory have been excellent."

R J SCOTT, Managing Director, MEL

"...very good and fills admirably a long-felt want."

Major-General R BRITTEN, CB, MC, Defence Consultant

The *British Defence Directory*, is the quarterly, computerized directory of senior service and civilian personnel in the Ministry of Defence, Royal Navy, Army, Royal Air Force and NATO commands. It lists:

1. The post, rank, date of appointment, addresses and telephone number of current senior postholders and future senior appointments where already announced.
2. The job title, area of responsibility and telephone number of the post for less senior, but still key appointments. Appointments in the Royal Ordnance Factories, Defence sales, and International Military Services Ltd are also detailed.

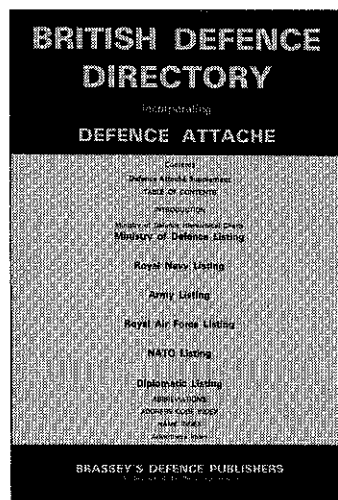
By virtue of its rapid updating, the *British Defence Directory*, is able to communicate the substantial and frequent personnel changes within the MOD and the Armed Services. It is an essential reference work for defence equipment manufacturers, defence attachés, and all who need up-to-date and accurate access to the Defence Establishment.

## Contents

The Directory consists of six parts:

1. Ministry of Defence
2. Royal Navy
3. Army
4. Royal Air Force
5. NATO Commands
6. Diplomatic

A sixteen page supplement - *Defence Attaché*, - has been incorporated into the *British Defence Directory*, providing interesting news coverage and informed comment on matters of current interest in the defence field.



## Subscription Information

1988: Volume 7 (4 issues)

ISSN: 0272-4282 (649)

Published by Brassey's  
Defence Publishers

# BRITISH MEDICINE

Monthly Guide to the Literature

Published with the support of the Royal Society of Medicine

Editor: A SWAN, *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*British Medicine* is a current awareness service designed to provide information about the wealth of medical publications produced each month.

Issues cite new books, non-book materials (e.g. slides, audio-visual aids), official publications, brochures, pamphlets, and reports by research institutions and voluntary societies. In addition, it lists the main contents of current issues of British periodicals, announces forthcoming congresses and calls attention to new periodicals or changes in title.

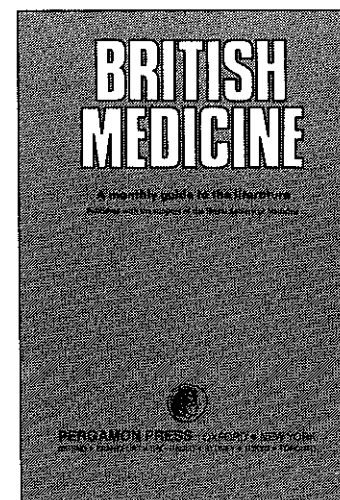
*British Medicine* is arranged as follows:

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- Medical Ancillary Subjects
- Nursing and Nurse Education
- Pharmacy, Pharmacology and Toxicology
- Psychology and Psychiatry
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- Social Services and Social Welfare
- Hygiene and Public Health
- Hospitals, NHS and Administration
- Reports

## Non-Book Materials

- Congresses
- Current Periodicals
- Author and Title Index to Books Section



## Subscription Information

1988: Volume 17 (12 issues)

ISSN: 0140-2722 (629)

# ANALYSIS MATHEMATICA

Published jointly by the USSR Academy of Sciences and the Hungarian Academy of Sciences. Distributed outside COMECON by Pergamon.

Editors-in-Chief: **B SZOKEFALVI-NAGY**, Hungary and **S M NIKOL'SKII**, USSR

*Analysis Mathematica* is an international quarterly sponsored jointly by the Academy of Sciences of the USSR and the Hungarian Academy of Sciences.

It is dedicated primarily to problems of classical mathematical analysis, such as the differentiation and integration of functions, measure theory, analytic and harmonic functions, Fourier analysis and orthogonal expansions, approximation of functions and quadrature formulae, function spaces, extremal problems and inequalities, etc.

The journal publishes research papers containing new, essential results with complete proofs, and also occasional survey papers prepared on the initiative of the Editorial Board.

## A Selection of Papers

On optional extrapolation and interpolation of fuzzy analytic functions, **K YU OSIPENKO** (USSR).

Approximation by algebraic polynomials of classes of functions which are fractional integrals of summable functions, **V A KOFANOV** (USSR).

On the approximation by de la Vallee Poussin sums and interpolatory polynomials in Lipschitz norms, **J PRESTIN** (GDR).

On imbedding of certain function classes in symmetric spaces, **B V SIMONOV** (USSR).

Pointwise convergence of multiple Fourier series using different convergence notions, **F MORICZ** (Hungary) & **V TOTIK** (Hungary).

On the absolute summability of trigonometric series, **T TSUCHIKURA** (Japan).

Additive functions, **Z DAROCZY** (Hungary) & **I KATAI** (Hungary).

Approximation of continuous functions by Euler means, **A A EFIMOV** (USSR).

On strong summability of polynomial expansions, **F SCHIPP** (Hungary) & **NGUYEN XUAN KY** (Hungary).

Inequalities of the "large sieve" type and applications to problems of trigonometric approximation, **K I OSKOLKOV** (USSR).

# ANNALS OF BIOMEDICAL ENGINEERING

The Journal of the Biomedical Engineering Society

Editor: **HUN H SUN**, *Biomedical Engineering & Science Institute, Drexel University, Philadelphia, PA 19104, USA*

*Annals of Biomedical Engineering*, the journal of the Biomedical Engineering Society, publishes reports of original research on the application of sound engineering theory or practice to significant biomedical questions and problems. Areas of interest include:

(1) *Biomaterials, biomechanics and rehabilitation engineering.* Analysis of solid and fluid mechanical problems applied to biology; effects of ionizing and non-ionizing radiation on biological tissues; mechanisms of tissue reaction, biocompatibility, and biodegradation of implant materials, including fundamental studies of interfacial phenomena and prosthetic and orthotic devices; physical and chemical properties of biological tissues (hard and soft tissues).

(2) *Instrumentation.* Basic research in bioinstrumentation for both clinical and research applications; development of transducers for physiological measurements and associated instrumentation-telemetry, microelectronics and integrated circuitry, etc., biomedical imaging theory and instrumentation; innovative applications of computers and information science to research and clinical data acquisition, processing and interpretation.

(3) *Physiological systems analysis.* Physiological systems (in both health and disease) investigated with mathematical modeling, computer simulation, system identification/parameter estimation, control theory, signal analysis, electromagnetic field theory, transport phenomena, chemical kinetics, etc. Systems include cellular, neural/sensory, membrane tissue, cardiovascular, respiratory, renal, gastro-intestinal, metabolic/endocrine, regulatory/humoral.

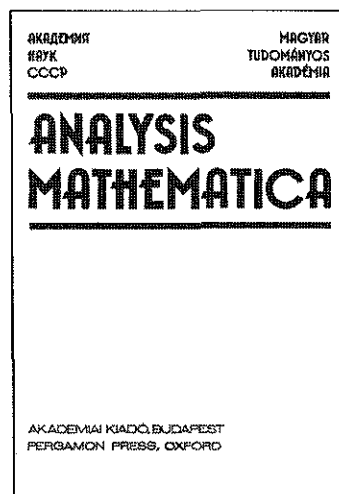
In addition, *Annals* publishes letters to the editor, book reviews, patent disclosures, and software surveys which are pertinent to recent developments in biomedical engineering.

## A Selection of Papers

Heart-lung interaction: effect on regional air content and total heart volume, **E A HOFFMAN** & **E L RITMAN**.

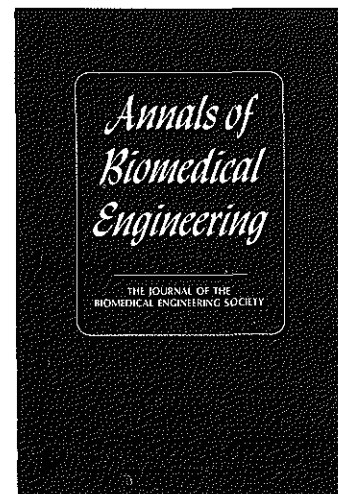
Augmentation of pressure in a vessel indenting the surface of the lung, **J E TSITLIK** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, CABS, Index Medicus, MEDLINE, MEDLARS, BIOSIS Database, Eng Ind Monthly and Author Ind, Excerpta Medica, Energy Res Abstr, Energy Data Base, Engineering Index Annual, COMPENDEX, ABME, Ei Engineering Meetings, Eng Index Bioengineering Abstr, Sociedad Iberoamericana de Informacion Cientifica*



## Subscription Information

1988: Volume 14 (4 issues)  
ISSN: 0133-3852 (532)



## Subscription Information

1988: Volume 16 (6 issues)  
ISSN: 0090-6964 (238)

# BULLETIN OF MATHEMATICAL BIOLOGY

A Journal Devoted to Research at the Interface of Theoretical and Experimental Biology

Official Journal of the Society for Mathematical Biology

Editor: **LEE SEGEL**, *Department of Applied Mathematics, Weizmann Institute of Science, Rehovot 76 100, ISRAEL*

The primary aim of the *Bulletin* is to foster better understanding in the biological sciences at or near the interface of theoretical and experimental biology.

Contributions are of two main types: (a) those which combine theory and experiment, demonstrating the symbiotic effect that arises when these two major approaches are closely interrelated; and (b) purely theoretical papers that introduce a new concept with a clear and convincing exposition of how the concept might further an understanding of an important area of biology. Papers that clarify the analysis of biologically relevant models are also published, as are purely theoretical articles whose major biological implications are detailed in discipline-orientated journals.

Special features of the *Bulletin* include: (a) Forum - for rapid, informal communications between biologists and mathematicians. (b) Tutorial articles - pedagogic introductions to an area of mathematics or biology. (c) Book Review Section

## A Selection of Papers

Stochastic model of population growth and spread, **S S DE**. Hierarchical evolutive systems: a mathematical model for complex systems, **A C EHRESMANN & J-P VANBREMEERSCH**.

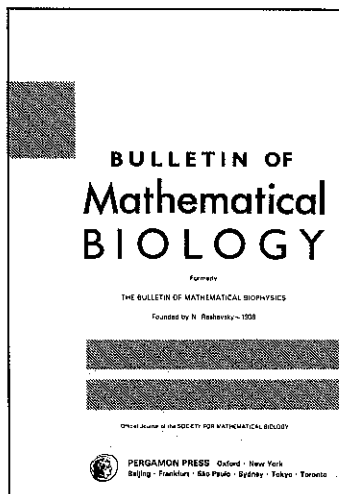
Bayesian image processing of data from constrained source distributions - 1. non-valued, uncorrelated and correlated constraints, **Z LIANG & H HART**.

Inference algorithms for developmental systems with cell lineages, **H JUGENSEN & A LINDENMAYER**.

Non-equilibrium fluctuation in Volterra-Lotka systems, **M C BAISHYA & C G CHAKROBORTI**.

A Software Survey section is included in this journal

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Current Awareness in Biological Sciences (CABS), BIOSIS Database*



**Subscription Information**  
1988: Volume 50 (6 issues)  
ISSN: 0092-8240 (360)

# CALPHAD

Computer Coupling of Phase Diagrams and Thermochemistry

The International Research Journal for Calculation of Phase Diagrams

Editor-in-Chief: **L KAUFMAN**, *Manlabs Inc, 21 Erie St, Cambridge, MA 02139, USA*

The introduction of computer based methods for synthesizing the results of diverse thermochemical and phase diagram data has provided new opportunities for assessing, collating and disseminating information which is important for many industrial processes. In order to illustrate the methods employed for effecting this synthesis as well as the new form which this information will take, CALPHAD publishes its results on a regular basis.

Material published was initially drawn from the work of the CALPHAD (Calculation of Phase Diagrams) Group. However, related papers of high quality are welcomed from the scientific and technical community at large. Since most of the CALPHAD membership are practicing thermochemists or engaged in studies of phase equilibria which are intimately related to industrial processes, it is anticipated that the subject material published will be relevant to problems of current technological interest. The group continually reassesses the data it has published and provides corrections and additions.

## A Selection of Papers

A thermodynamic evaluation of the C-Fe-Ni system,

**A GABRIEL** (France) *et al.*

Application of the Hoch-Arpsshofen model to ternary, quaternary and larger systems, **M HOCH** (USA).

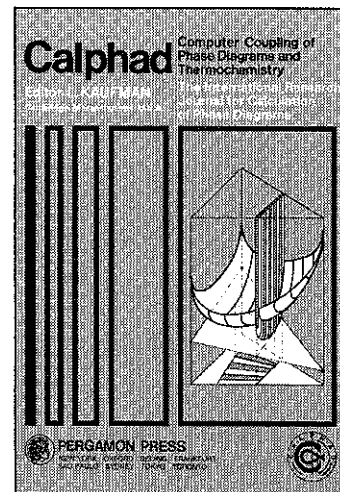
Thermodynamic properties of Cr-C, **J O ANDERSON** (Sweden).

The calculation and application of R function in ternary systems, **K C CHOU** (China).

Measurement and calculation of the phase diagram of the LiCl-BaCl<sub>2</sub>-SrCl<sub>2</sub> system, **Q ZHIYU** (China) *et al.*

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable format.

**Indexed/Abstracted in:** *Current Contents, BIOSIS Database, Energy Res Abstracts, Energy Data Base, Engng Ind Monthly & Author Index, Computer & Info Systems Abstracts, ISMEC Bulletin, Management Contents, Computer Contents, Cambridge Sci Abstracts, INSPEC*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0364-5916 (254)

## ANNALS OF THE ICRP

Published on behalf of the International Commission on Radiological Protection

Scientific Secretary: **H SMITH**, ICRP, Box No. 35, Didcot, Oxfordshire, Ox110RJ, UK

Founded in 1928, the International Commission on Radiological Protection has, since 1950, been providing general guidance on the widespread use of radiation sources caused by rapid developments in the field of nuclear energy.

The reports and recommendations of the ICRP are available as the review journal *Annals of the ICRP*. Subscribers to the journal will be assured of receiving each new report as soon as it appears, thus ensuring that they are kept abreast of the latest developments in this important field, and can build up a complete set of ICRP reports and recommendations.

Single issues of the journal are also available separately for those individuals and organizations who do not require a complete set of all ICRP publications, but would like to have their own copy of a report covering their own particular field of interest.

Subscribers to the journal save approximately 20% on the cost of purchasing single issues and may also purchase previous reports at a saving of 20% on the non-subscriber price.

### A Selection of Recent Publications

No. 53: Radiation dose to patients from radiopharmaceuticals.

No. 52: Protection of the patient in nuclear medicine.

No. 51: Data for use in protection against external radiation.

No. 50: Lung cancer risk from indoor exposures to radon daughters.

No. 49: Developmental effects of irradiation on the brain of the embryo and fetus.

No. 48: The metabolism of plutonium and related elements.

No. 47: Radiation protection of workers in mines.

No. 46: Radiation protection principles for the disposal of solid radioactive waste.

No. 45: Quantitative bases for developing a unified index of harm.

No. 44: Protection of the patient in radiation therapy.

No. 43: Principles of monitoring for the radiation protection of the population.

No. 42: A compilation of the major concepts and quantities in use by ICRP.

No. 41: Nonstochastic effects of ionizing radiation.

No. 40: Protection of the public in the event of major radiation accidents: principles for planning.

## ANNALS OF TOURISM RESEARCH

A Social Sciences Journal

Editor-in-Chief: **JAFAR JAFARI**, Department of Habitational Resources, University of Wisconsin-Stout, Menomonie, WI 54751, USA

*Annals of Tourism Research* is a social sciences journal focusing upon the academic perspectives on tourism. While striving for a balance of theory and application, the journal is ultimately dedicated to developing theoretical constructs. Its strategies are to invite and encourage offerings from various disciplines; to serve as a forum through which these may interact; and thus to expand frontiers of knowledge in and contribute to the literature of tourism social science. In this role, the journal both structures and is structured by research efforts of a multidisciplinary community of scholars.

### A Selection of Papers

Training needs assessment in the travel industry, **P SHELDEN** (USA) & **C GEE** (USA).

Spatial patterns of package tourism in Europe, **D PEARCE** (New Zealand).

Tourism in the least developed countries, **E CATER** (UK).

Regional analysis of tourism resources, **S SMITH** (Canada)

Domestic tourism in Germany, **C BECKER** (FRG).

Spanish tourism markets, **A LEVER** (UK).

### Forthcoming Special Issues

1988: Methodological issues in tourism research, **G DANN** (Barbados) *et al.* Guest Editors.

1989: The semiotics of tourism,

**D MacCANNELL** (USA), Guest Editor.

1990: Tourism in centrally-planned economies,

**J ALLCOCK** (UK) &

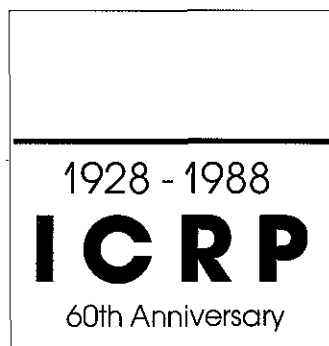
**K PRZECLAWSKI** (Poland), Guest Editors.

1991: Tourism social science, **J JAFARI** (USA) &

**N GRABURN** (USA).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Social and Behavioral Sciences, Soc Sci Citation Index, Communications Abstracts, Sociological Abstracts, Abstracts in Anthropology, Public Affairs Information Service Bulletin, Leisure Recreation and Tourism Abstracts, Geo Abstracts, Journal of Travel Research, Cornell Quarterly, Touristic Analysis Review, Documentation Touristique, Sociology of Leisure and Sports Abstracts, Travel and Tourism Index*



### Subscription Information

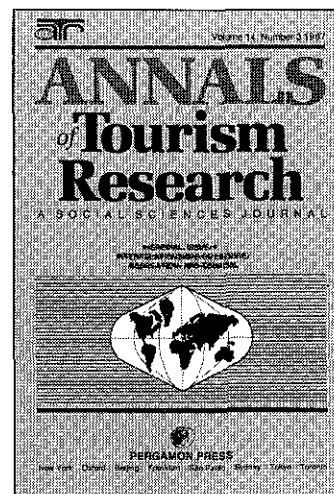
1988: Volume 19 (4 issues)

ISSN: 0146-6453 (442)

### Subscription Information

1988: Volume 15 (4 issues)

ISSN: 0160-7383 (689)





# CELLULAR AND MOLECULAR BIOLOGY

Editor-in-Chief: **RAYMOND WEGMANN**, 8 Rue du Cdt Schloesing, F-75116 Paris, France

The journal publishes original articles in the fields of cellular and molecular biology and enzymology, applied to human tissues as well as to animals and plants. Unlike more traditional histochemical journals, *Cellular and Molecular Biology* is open to a more extensive field of research since the evolution of biology and biochemistry becomes more and more a matter for inter-disciplinary exchange. For that reason contributions to biological, medical, dental, veterinary, pharmacological and biological research are published provided that they demonstrate the link between structure and biochemical function.

## A Selection of Papers

An improved coupled peroxidatic oxidation method of MAO histochemistry for neuroanatomical research at light and electron microscopic levels, **T MAEDA** (Japan) *et al.*

Scanning electron microscopic detection of colloidal gold labelled surface immunoglobulin on mouse splenic lymphocytes following treatment with the amphiphilic agent CTAB, **G I L PAATERO** (Finland) *et al.*

Cell-cell communication and hormonal imprinting: transmission of a receptor level effect of cells not directly influenced by the hormone, **G CSABA** (Hungary) *et al.*

Effect of indomethacin and acetylsalicylic acid (ASA) on peroxidase activity of gastric mucosa of rat, **S F ALINO** (Spain) & **E HILARIO** (Spain).

Purification and characterization of an acidic beta-galactosidase from rabbit kidney, **M PAEZ DE LA CADENA** (Spain) *et al.*

Serotonergic and adrenergic mechanisms in tolerance development to ethanol and barbital,

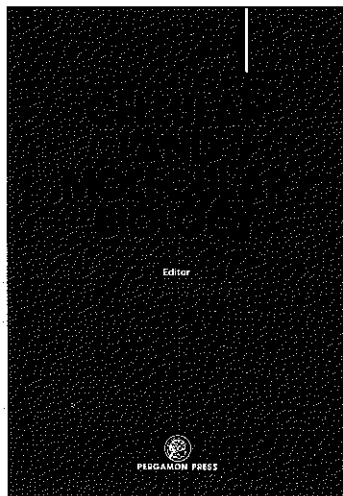
**A GERMANY** (Chile) *et al.*

Cytofunctional changes in E.U.E. cells adapted to hypertonic medium: scanning and transmission electron microscopy observations, **A M BOLOGNANI FANTIN** (Italy) *et al.*

Ultrastructural study of acetylcholinesterase activity in the intrapancreatic ganglia of the rat, **P ANGLADE** (France).

**Indexed/Abstracted in:** *Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), BIOSIS Database*

**Subscription Information**  
1988: Volume 34 (6 issues)  
ISSN: 0145-5680 (591)

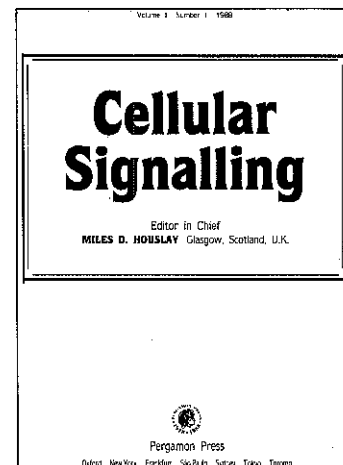


# CELLULAR SIGNALLING

Editor-in-Chief: **MILES D HOUSLAY**,  
*Molecular Pharmacology Group, Department of Biochemistry,*  
*The University of Glasgow, Glasgow G12 8QQ, UK*

This journal will publish original papers covering all aspects of mechanisms, actions and structural components of cellular signalling systems. The emphasis will be on the production, regulation and action of second messengers; the structure, regulation and action of receptors; guanine nucleotide regulatory proteins; effector systems, such as tyrosyl kinases, adenylate and guanylate cyclase and ion channels; the effect of cellular signalling events on the functioning, growth and differentiation of target cells in normal and pathological states and also cellular oncogenes. Within the scope of the journal, manuscripts dealing with biochemistry, cell biology, molecular biology, pharmacology, neurobiology, molecular endocrinology and molecular oncology will be welcomed. The journal will also publish short original reviews on topical subjects.

**Subscription Information**  
1988/89: Volume 1 (6 issues)  
ISSN: tba (851)  
First issue due mid-1988



# APPLIED GEOCHEMISTRY

Journal of the International Association of Geochemistry and Cosmochemistry

Executive Editor: **BRIAN HITCHON**, *Alberta Research Council, 250 Karl Clark Road, PO Box 8330, Postal Station F, Edmonton, Alberta, T6H 5X2, Canada*

*Applied Geochemistry* is an international journal devoted to original research papers in geochemistry and cosmochemistry which have some practical application to an aspect of human endeavour, such as the search for resources, their upgrading, preservation of the environment, agriculture and health.

Within the wide range of topics covered by *Applied Geochemistry* are:

- the search for energy resources such as petroleum, natural gas, geothermal energy, oil, shales, tar sands and coal, as well as uranium;
- the search for mineral resources, both metalliferous and non-metalliferous;
- the upgrading of energy and mineral resources where there is a direct geochemical application, e.g. water rock interaction during *in situ* recovery of tar sands;
- the use of geochemical knowledge for the protection of the environment from pollution;
- medical geochemistry or the association of diseases (human health) with, for example, trace elements in soils and water;
- agricultural aspects of geochemistry, e.g. association of growth with trace elements in soils and water.

"...an excellent spread of topics...processing time appears to be as little as two months...production quality is uniformly high...many Earth scientists and geochemists will find *Applied Geochemistry* a journal which deals with what interests them..."  
Nature, Volume 329, Sept 1987.

## A Selection of Papers

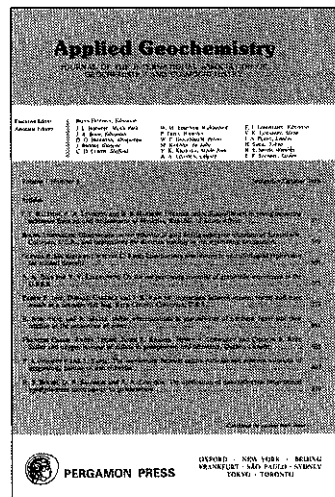
Uranium series disequilibrium in young lacustrine sediments from an arid environment at Henkries, Republic of South Africa, **I T RALSTON** (South Africa) *et al.*

Observations on the behavior of gold during supergene oxidation at Summitville, Colorado, USA, and implications for electrom stability in the weathering environment, **R STOFFREGEN** (USA).

Luminometry and isotopy in microbiological exploration for mineral deposits, **G B MICHAELS** (USA) & **W C RIESE** (USA).

On the ore producing potential of granitoids: experiences in the USSR, **A A BEUS** (USSR) & **V V LJAKHOVICH** (USSR).

Interaction between organic matter and trace metals in a uranium rich bog, Kern County, California, USA, **E F IDIZ** (USA) *et al.*



Subscription Information  
1988: Volume 3 (6 issues)  
ISSN: 0883-2927 (768)

# APPLIED MATHEMATICS LETTERS

An International Journal of Rapid Publication

Managing Editor: **ERVIN Y RODIN**, *Department of Systems Science and Mathematics, Washington University, Box 1040, St Louis, MO 63130, USA*

The purpose of *Applied Mathematics Letters* is to provide a means of very rapid publication for important but brief applied mathematical papers with the best possible quality of typography that a camera-ready publication can provide. It is the intent of the Editors to put this journal on the path of a continuous evolutionary process insofar as the technicalities of printing and publication are concerned. Our intent is to guarantee that the time elapsed between the receipt of a paper in our editorial offices and publication shall not be more than 90 days on average.

The brief description of any work involving a novel application or utilization of mathematics, or a development in the methodology of applied mathematics, is a potential contribution for this journal. All areas of mathematics are appropriate from number theory through Lie algebras to differential games. All application areas are welcome as well, be they computer science, physics, anthropology, fluid dynamics or any other of the main fields of endeavour, where mathematics is used in nontrivial ways.

## A Selection of Papers

A new quasi-Newton algorithm, **YIN ZHUANG** (USA) & **R P TEWARSON** (USA).

Iterative solution of the Lyapunov matrix equation, **E L WACHSPRESS** (USA).

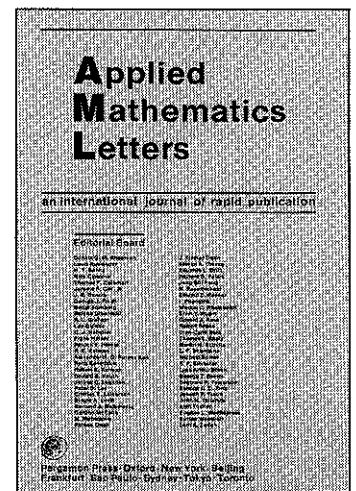
Curve tailoring with interactive computer graphics, **J E DENNIS Jr.** (USA) & **D J WOODS** (USA).

Effects of grid irregularity on iterative methods, **T F CHEN** (USA) & **G J FIX** (USA).

Finding and applying perfect hash functions, **N CERCONE** (Canada).

Adaptive pseudo-spectral computation of cellular flames stabilized by a point source, **A BAYLISS** (USA) *et al.*

A theoretical framework for convergence and continuous dependence of estimates in inverse problems for distributed parameter systems, **H T BANKS** (USA) & **K ITO** (USA).



Subscription Information  
1988: Volume 1 (4 issues)  
ISSN: 0893-9659 (843)

# CHEMICAL ENGINEERING SCIENCE

Executive Editor: **J BRIDGWATER**, *Department of Chemical Engineering, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK*

The journal publishes papers dealing with the application to chemical engineering of the basic sciences and mathematics. Subjects range from general chemical engineering principles to an analysis of particular industrial processes and may include analysis of problems arising in the processing of gases, liquids and solids, the development of new chemical processes, process design and plant design. The following are typical topics: fluid mechanics, multi-phase flow and heat transfer in a chemical engineering context, mass transfer, applied reaction kinetics, process control, chemical thermodynamics, separation processes, fluidization, mechanics and statistics of mixing and mechanics of process equipment and machinery. In addition, *Chemical Engineering Science* publishes in new significant areas of research: biochemical engineering, solids technology, separation processes, particulate technology, processing of materials to achieve high performance, combustion and fuel utilization, process simulation, integration and control, environmental control, enhanced oil recovery, evaluation of physical properties and predictions for process design. The journal includes specially commissioned review articles and also publishes the annual P V Danckwerts Memorial Lecture, organized in association with the Institution of Chemical Engineers.

## A Selection of Papers

A model for countercurrent gas-solid-solid trickle flow reactor for equilibrium reactions. The methanol synthesis, **K R WESTERTERP** (The Netherlands) & **M KUCZYNSKI** (The Netherlands).  
Enhanced boiling of mixtures, **J R THOME** (Italy).  
Choice of metals for predicting the dispersion height in liquid/liquid gravity settlers from batch settling data, **S HARTLAND** (Switzerland) & **S A K JEELANI** (Switzerland).  
Effective transport coefficients in heterogeneous media, **K A AKANNI** (USA) *et al.*  
Dynamic behaviour of a catalyst pellet with nonuniform activity distribution, **A BRUNOVSKA** (Czechoslovakia).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, PASCAL-CNRS Database, BIOSIS Database, Petroleum Abstracts, INSPEC*

## Chemical Engineering Science

Executive Editor  
**J. BRIDGWATER**  
*University of Birmingham*

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**PERGAMON PRESS**  
OXFORD · ELSEVIER · AMSTERDAM · TOKYO · SAN DIEGO · SYDNEY · TORONTO

**Subscription Information**  
1988: Volume 43 (12 issues)  
ISSN: 0009-2509 (215)

# CHEMOSPHERE

Chemistry, Biology and Toxicology as Related to Environmental Problems

Executive Editor: **T STEPHEN**, *8 Lewis Close, Risinghurst, Headington, Oxford OX3 8JD, UK*  
Chairman of the Policy Board: **O HUTZINGER**, *Department of Ecology Chemistry and Geochemistry, Postfach 3008, D-8580 Bayreuth, FRG.*

*Chemosphere* is an international journal designed for the rapid publication of original and important communications in English, French and German as well as review articles in English. *Chemosphere*, as a multi-disciplinary journal, offers maximum dissemination of investigations related to the health and safety of every aspect of life. Environmental protection encompasses a very wide field and relies on scientific research in chemistry, biology, physics, toxicology and inter-related disciplines.

Three types of communication will be published.

- Original communications describing important new discoveries or further developments in important fields of investigation related to the environment and human health.
- Invited reviews, critical but non-polemical; mainly of new rapidly developing areas of environmental protection.
- A special information and news section will provide current information on books, meetings, industrial practices and government decisions.
- Scientific investigations in any of the following main topics will be considered for publication: The Natural Environment; Meteorology and Climate; Environmental Chemicals and Analysis; Air and Water Pollution, Waste Treatment; Environmental Fate of Chemicals; Pharmacodynamics - Bioaccumulation - Metabolism; Effects on Man; Occupational Hazards and Exposure; Ecotoxicology.

## A Selection of Papers

A predictive structure-toxicity model with *Daphnia magna*, **J DEVILLERS** (France) *et al.*  
Characterization of halogenated organic acids in flue gases from municipal waste incinerators, **J MOWRER** (Sweden) & **J NORDIN** (Sweden).  
The efficiency of two standardized procedures for extracting mutagenic chemicals from soils, **L A MAGGARD** (USA) *et al.*  
Leaching of mercury from peat soil, **M LODENIUS** (Finland) *et al.*

**Indexed/Abstracted in:** *Chemical Abstracts*

## CHEMOSPHERE

Chemistry, Biology and Toxicology as Related to Environmental Problems

Executive Editor: T. STEPHEN, 8 Lewis Close, Risinghurst, Headington, Oxford OX3 8JD, UK

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Indexed/Abstracted in: Current Contents, Ecology Abstracts, CAS, BIOSIS Database, PASCAL-CNRS Database

PERGAMON PRESS  
Oxford · New York · Frankfurt · São Paulo · Sydney · Tokyo · Toronto

**Subscription Information**  
1988: Volume 17 (12 issues)  
ISSN: 0045-6535 (362)

## AQUALINE ABSTRACTS

Published on behalf of the Water Research Centre

Editor: **GEOFF BOTHAMLEY**, *WRc Processes, Stevenage Laboratory, Elder Way, Stevenage, Herts SG1 1TH, UK*

Published since 1927, *Aqualine Abstracts* contains some 5,000 records annually on water and wastewater technology, classified under eight section headings to ensure rapid access to the information. Published every other week, each issue of *Aqualine Abstracts* provides up to 200 summaries from world-wide sources selected specially for their relevance to engineers, scientists and managers engaged in water supply and wastewater disposal.

*Aqualine Abstracts* offers comprehensive coverage of all aspects of water, wastewater, associated engineering services and the aquatic environment. Over 600 periodicals, as well as books, reports and conference proceedings and other publications from water-related institutions worldwide are scanned by trained information scientists for relevant data on every aspect of the industry. In addition to the bi-weekly printed journal, the information is also available as an online database going back to 1960 and containing over 100,000 abstracts, including those published in *Aqualine Abstracts*. Also available online via Pergamon ORBIT InfoLine.

### Contents

Water Resources and Supplies

*Legislation. Management. Runoff. Surface water. Groundwater. Water Quality*

*Eutrophication. Ecosystems. Pollutants. Drinking water. Health hazards.*

Monitoring and Analysis of Water and Wastes

*Microbiology. Indicator organisms. Sampling. Monitoring. Instrumentation. Chemical and physical determinations.*

Water Treatment

*Treatment Processes.*

Underground Services and Water Use

*Water distribution. Sewers and sewerage. Irrigation.*

*Aquaculture. Water re-use.*

Sewage

*Sewage works. Treatment processes in sequence. Sludge treatment. Disposal.*

Industrial Effluents

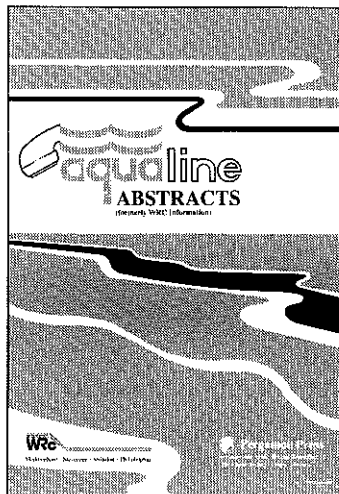
*Organic wastes. Chemical wastes. Metal-containing wastes.*

*Fossil fuels. Radioactive wastes.*

Effects of Pollution

*Sewage. Heated discharges. Metals. Pesticides. Fossil fuels.*

*Radioactivity.*



### Subscription Information

1988: Volume 4 (26 issues)

ISSN: 0263-5534 (760)

*Aqualine Abstracts*

available online via

Pergamon ORBIT InfoLine

## ARCHIVES OF CLINICAL NEUROPSYCHOLOGY

The Official Publication of the National Academy of Neuropsychologists

Editor: **RAYMOND S DEAN**, *Neuropsychology Laboratory, TC-521, Ball State University, Muncie, IN 47306, USA*

*Archives of Clinical Neuropsychology* is a quarterly journal sponsored by the National Academy of Neuropsychologists. The journal publishes original contributions dealing with psychological aspects of the etiology, diagnosis, and treatment of disorders arising out of dysfunction of the central nervous system. *Archives of Clinical Neuropsychology* will also consider manuscripts involving the established principles of the profession of neuropsychology: (a) delivery and evaluation of services, (b) ethical and legal issues, and (c) approaches to education and training. Preference will be given to empirical reports and key reviews. Brief research reports and commentaries on published articles (not exceeding two printed pages) will also be considered. At the discretion of the editor, rebuttals to commentaries may be invited. Occasional papers of a theoretical nature will be considered.

### A Selection of Papers

The practice of clinical neuropsychology in the United States, **M L SERETNY** *et al.*

Clinical acumen but psychometric naivete in neuropsychological assessment of educational disorders, **C R REYNOLDS**.

Response time as a dependent measure on the category test of the Halstead-Reitan neuropsychological test battery, **G RATTAN** *et al.*

Impaired verbal and figural fluency after head injury, **R M RUFF** *et al.*

Differential sensitivity of the WAIS and a modified Halstead-Reitan battery to severity of brain dysfunction in epilepsy, **T KUPKE & R LEWIS**.

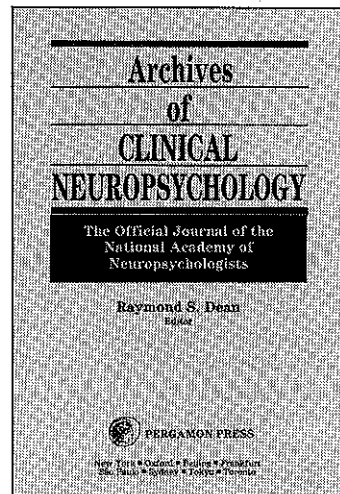
Neuropsychological characteristics and atrophic brain changes in senile and presenile dementia, **R I NAUGLE** *et al.*

Clinical memory tests and everyday memory, **M M LITTLE** *et al.*

Neuropsychological performance in dementia of the Alzheimer type and multi-infarct dementia, **D W LORING** *et al.*

Depression and hemispheric site of cerebral vascular accident, **J M WILLIAMS** *et al.*

A Software Survey section is included in this journal.



### Subscription Information

1988: Volume 3 (4 issues)

ISSN: 0887-6177 (802)

# CHINA OCEAN ENGINEERING

Co-published with China Ocean Press

Sponsored by the Chinese Ocean Engineering Society

Edited by NANJING HYDRAULIC RESEARCH INSTITUTE,  
China

*China Ocean Engineering* has as its prime function the integration of new research concepts, equipments, technology, materials and structures and other scientific advances within the field of ocean engineering, with specific reference to developments in China.

The journal is concerned with all engineering aspects involved in the exploration and utilization of ocean resources, such as offshore engineering, dive and salvage, utilization of marine energy resources and underwater technology.

Topics regularly covered will include coastal engineering, instrumentation/testing, mineral research, structural/stress analysis, computer applications, soil mechanics, sedimentation and wave dynamics.

Published under the aegis of the Chinese Ocean Engineering Society, the journal reports the current activities of the Society and its technical committees and will devote itself to strengthening academic exchanges, promoting cooperation in science and technology, and making valuable contributions to the progress in ocean engineering and the development and utilization of marine resources worldwide.

## A Selection of Papers

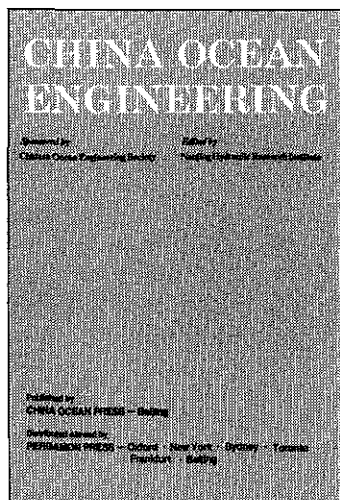
The development and present state in research of Chinese coast and estuary, **HUANG SHENG** (China).

The stress analysis of tubular joints of offshore drilling platforms by variational method, **CHEN TIEYUN** (China) & **WANG YOUQI** (China).

Some considerations on analysis for liquefaction of offshore gravity structure foundations, **HE GUANGNA** (China).

SOECO's computer programs and systems for offshore engineering, **LIAN GAN** (China) & **HU KAI** (China).

Generalized normal distribution: a probabilistic model for nonlinear irregular waves, **HONG GUANGWEN** (China).



## Subscription Information:

1988: Volume 2 (4 issues)

ISSN: 0890-5487 (808)

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Press outside the People's  
Republic of China.

# CHINESE ASTRONOMY AND ASTROPHYSICS

Translation Editor: T KIANG, *Dunsink Observatory,  
Castleknock, County Dublin, Ireland*

*"The latest issues of the journal reflect keen interest in new ideas in cosmology - massive neutrinos, phase transitions and elementary particles....The most impressive articles appearing regularly in the journal are those on the history of astronomy - any scholars with interests in the history of astronomy will find remarkable and otherwise inaccessible archival material published here. All astronomy and history of science libraries should consider subscribing, especially since the subscription is moderate and over eighty articles appear in an annual volume."*

Nature

## A Selection of Papers

Cerenkov microwave line emission of hydroxyl radical,  
**LI SHOU-ZHONG & YOU JUN-HAN**.

A non-black hole model of galactic nuclei with monopoles,  
**PENG QIU-HE** *et al.*

Correlation between galaxies and quasar candidates in the South Galactic Pole region, **FAN XIAO-MING & CHEN JIAN-SHENG**.

The radiative spectrum of dust heated by Population III,  
**XIE GUANG-ZHONG & BAO CHU-XIAN**.

Computation and analysis of the physical fields of a disc flare loop, **YAN GUO-YING** *et al.*

A statistical method of estimating the rotation of Be stars,  
**CHEN HAI-QI & HUANG LIN**.

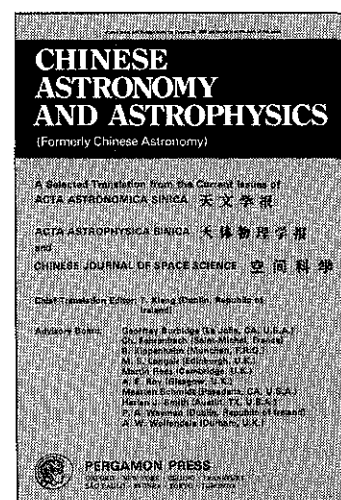
Rotational measurement and study of RS CVn binaries. II,  
**TAN HUI-SONG & LIU XUE-FU**.

Formation of the H-beta line in solar chromosphere magnetic field, **ZHANG HONG-QI & AL GUO-XIANG**.

## Subscription Information

1988: Volume 12 (4 issues)

ISSN: 0275-1062 (585)



# ATMOSPHERIC ENVIRONMENT

## Micrometeorology and Industrial Aerodynamics

Executive Editors: **D J MOORE**, *Central Electricity Research Laboratory, Leatherhead, Surrey KT22 7SE, UK*,  
**J P LODGE Jr**, *385 Broadway, Boulder, CO 80303, USA*,  
**M BENARIE**, *Institut Nationale de Recherche Chimique Appliquée, 12 Rue de l'Yveline, 91220 Breigny, France* and  
**R D BORNSTEIN**, *San Jose State University, School of Science, Department of Meteorology, One Washington Square, San Jose, CA 95192-0104, USA*

One of the oldest established journals in the field, *Atmospheric Environment* publishes papers on all aspects of man's interactions with his atmospheric environment, including the administrative, economic and political aspects of these interactions. Air pollution research and its applications are covered, taking into account changes in the atmospheric flow patterns, temperature distributions and chemical constitution caused by natural and artificial variations in the earth's surface.

Commencing in 1989, the journal will devote 3 issues a year to the topic of urban atmosphere. These issues will also be available for separate purchase. (—see *Urban Atmosphere* p. 186)

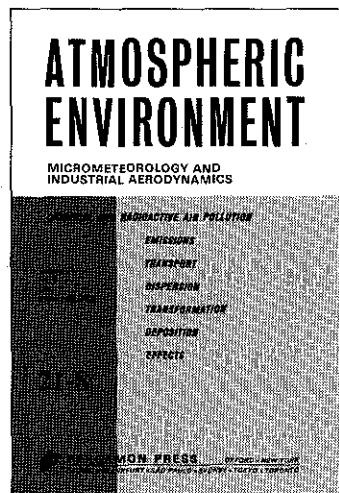
*Atmospheric Environment* has one of the largest circulations of scholarly journals of this kind. Its high reputation is reflected in the frequency of references to it.

### A Selection of Papers

Short-term variability in biogenic sulphur emissions from a Florida *Spartina alterniflora* marsh, **D J COOPER** (USA) *et al.*  
 Man-made mineral fibres in homes caused by thermal insulation, **J F VAN DER WAL** (The Netherlands) *et al.*  
 Use of rare earth tracers for the study of diesel emissions in the atmosphere, **B GEORGI** (FRG).  
 A data base of dioxin and furan emissions from municipal refuse incinerators, **M R BEYCHOK** (USA).  
 Nitrogen dioxide in exhaust emissions from motor vehicles, **M LENNER** (Sweden).  
 On the use of the synoptic vertical wind component in a transport trajectory model, **D MARTIN** (France) *et al.*  
 The influence of atmospheric stability on pollutant transport by slope winds, **J A KING** (USA) *et al.*  
 Anthropogenic nitrogen oxide transport and deposition in eastern North America, **J A FAY** (USA) *et al.*  
 One year of tracer dispersion measurements over Washington, DC, **R R DRAXLER** (USA).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Acid Preparation Digest, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
 1988: Volume 22 (12 issues)  
 ISSN: 0004-6981 (246)

# AUTOMATICA

The Journal of IFAC, the International Federation of Automatic Control

Editor-in-Chief: **G S AXELBY**, *211 Coronet Drive, North Linthicum, MD 21090, USA*

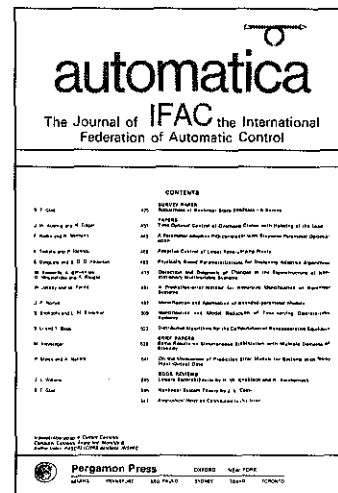
The journal publishes papers on theoretical and experimental research and its practical application to all types of control systems.

Topics covered include: the theory, design and characterization of control systems and components, the reliability of components and systems, data processing and computers for control purposes, computer-aided design and manufacturing and control of various industrial processes, space vehicles and aircraft, ships, traffic, biomedical systems, national economics, power systems, agriculture, and natural resources. The journal also includes the following special features: survey papers, book reviews and technical communiques.

### A Selection of Papers

A procedure for simultaneously stabilizing a collection of single input linear systems using non-linear state feedback control, **I R PETERSEN** (Australia).  
 The graph model for conflicts, **D M KILGOUR** (Canada) *et al.*  
 A parameter estimation perspective of continuous time model reference adaptive control, **G C GOODWIN** (Australia) & **D Q MAYNE** (UK).  
 From time series to linear system - III. Approximate modelling, **J C WILLEMS** (The Netherlands).  
 A multivariable self-tuning controller with integral action, **R SCATTOLINI** (Italy).  
 Necessary and sufficient conditions for parameter convergence in adaptive control, **S BOYD** (USA) & **S S SASTRY** (USA).  
 Non-linear dynamics in adaptive control: chaotic and periodic stabilization, **I M Y MAREELS** (Australia) & **R R BITMEAD** (Australia).  
 A new theoretical and algorithmical basis for estimation, identification and control, **P KOVANIC** (Czechoslovakia).  
 Stability improvement of a current source inverter-induction motor drive system, **K SHINOHARA** (Japan) & **S NONAKA** (Japan).  
 Electromagnet signal processing: an estimation/identification application, **J V CANDY** (USA) & **J E ZICKER** (USA).

**Indexed/Abstracted in:** *Current Contents, Computer Contents, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



**Subscription Information**  
 1988: Volume 24 (6 issues)  
 ISSN: 0005-1098 (270)

# CHROMATOGRAPHIA

An International Journal for Rapid Communication in Chromatography and Associated Techniques

Editors: **H ENGELHARDT**, *Angewandte Physikalische Chemie, Universität des Saarlandes, D-6600 Saarbrücken, FRG*,  
**G SCHOMBURG**, *Max Planck Institut für Kohlenforschung, Kaiser Wilhelm Platz 1, D-4330 Mülheim/Ruhr, FRG*,  
**R STOCK**, *Department of Chemistry, Sultan Qaboos University, Muscat, Oman* and **L S ETTRE**, *PO Box 2175, Belden Avenue Station, Norwalk, CT 06852, USA*

Present-day technology makes necessary the rapid exchange of information among professionals in the field of chromatography. Because of the difficulty in solving certain analytical problems quickly and economically using only one of the chromatographic methods, the combined use of varied techniques, such as gas chromatography and mass spectroscopy, yields more exact results.

*Chromatographia* is a monthly, international journal that meets the vital demand for the quick spread of accurate, concise information concerning chromatography and related fields. This publication offers relevant papers in English, French or German, with accompanying titles, summaries and figure captions printed in all three languages.

Modern analytical problems place such great demands on the accuracy, sensitivity, speed and economy of the instruments that they can only be solved by close cooperation between theorists, users and instrument manufacturers, and to this end

*Chromatographia* permits the rapid exchange of information. It will be of interest to chromatographers, analytical chemists, organic and inorganic chemists, spectroscopists, biochemists and clinical chemists.

## A Selection of Papers

Trace analysis of volatile polar organics by direct aqueous injection gas chromatography,

**B S MIDDLEDITCH** (USA) *et al.*

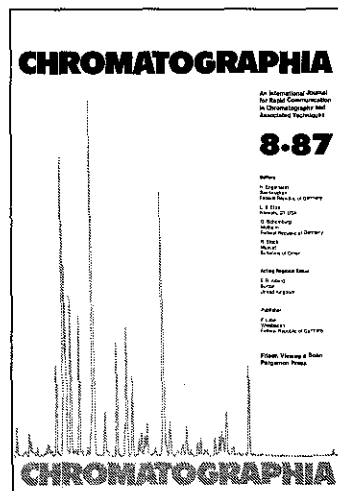
Investigation of interactions between chloroderivatives of alkanes and alkenes and chemically bonded transition metal complexes by gas chromatography, **W WASIAK** (Poland).

Computerized integration routines for chromatography,

**A L COLMSJO** (Sweden).

The use of characteristic volumes to measure cavity terms in reserved phase liquid chromatography, **M H ABRAHAM** (UK) & **J C MCGOWAN** (UK).

Lipids of contemporary stillingia oil,  
**YA-CHI CHEN** (USA) *et al.*



## Subscription Information

1988: Volumes 25 & 26

(13 issues)

ISSN: 0009-5893 (285)

Distributed by Pergamon

on behalf of

Friedr. Vieweg & Sohn

Verlagsgesellschaft GmbH

# CHRONOBIOLOGY INTERNATIONAL

A Journal for Biological Rhythm Research

An Official Journal of the International Society of Chronobiology

Editors-in-Chief: **A REINBERG**, *Fondation A de Rothschild, 29 rue Manin, 75940 Paris Cedex 19, France* and  
**M SMOLENSKY**, *The University of Texas Health Science Center, School of Public Health, PO Box 20186, Houston, TX 77225, USA*

*Chronobiology International* is an international, multidisciplinary journal encompassing biological-rhythm investigations of periodicity in all life forms including cancer, reproduction, photoperiodism, pharmacology and toxicology, neurophysiology and many other fields of specialization. It will also include correspondence, summaries of international conferences and other items of interest relevant to chronobiology.

*Chronobiology International* is dedicated to both basic and applied research, as well as the methodology, instrumentation and statistics of chronobiology. The journal welcomes the participation of researchers from all schools of chronobiological philosophy and training.

It is hoped that this new, multidisciplinary journal will, with the support of its distinguished international group of advisers, provide a major forum among chronobiologists of all scientific disciplines as well as computer specialists, statisticians and other supporting fields.

## A Selection of Papers

Half-life of thyroxine in dogs: explanation for the diurnal plasma level variations?, **J MINTEN** (Belgium) *et al.*

Sleepiness in shiftwork. A review with emphasis on continuous monitoring of EEG and EOG, **T AKERSTEDT** (Sweden) *et al.*

Circadian and seasonal variations of plasma insulin and cortisol concentrations in the Syrian hamster, *Mesocricetus Auratus*, **C J de SOUZA** (USA) & **A H MEIER** (USA).

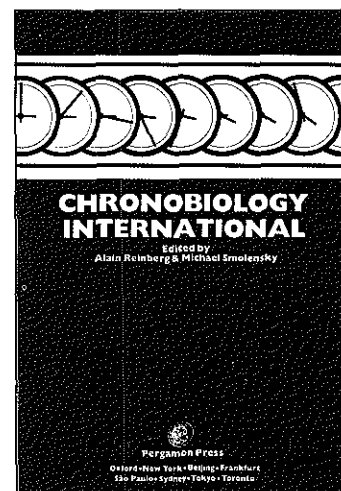
Effects of pregnancy and parturition on free-running circadian activity rhythms in the rat, **A M ROSENWASSER** (Israel) *et al.*  
The influence on survival of season of onset childhood acute lymphoblastic leukemia (ALL), **P COHEN** (Israel).

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Awareness in Biological Sciences (CABS), Chemical Abstracts, BIOSIS Database, Cambridge Sci Abstr, Psychol Abstr, Psych Info, ADIS*

## Subscription Information

1988: Volume 5 (4 issues)

ISSN: 0742-0528 (312)



# BEHAVIOUR RESEARCH AND THERAPY

An International Multi-Disciplinary Journal

Editor: **S RACHMAN**, *Department of Psychology, University of British Columbia, Vancouver, BC, V6T 1W5, Canada*

In keeping with the important scientific and clinical developments of the past 5 to 10 years, the scope of the journal has been widened to include work on Behavioural Medicine/ Medical Psychology.

The main conception unifying different approaches has been the belief that behavioural disorders of the most divergent type are essentially learned responses, and that modern learning theory, (using that term in its widest sense) has much to teach us regarding the acquisition and extinction of such responses. This conception, cutting across many existing boundary lines which separate psychiatry, education, clinical psychology, remedial teaching, psychotherapy, social work and psychoanalysis, forms the basis for the appearance of this journal, the main purpose of which is to give direction and focus to this new movement. Contributions will stress equally the application of existing knowledge to psychiatric and social problems, experimental research into fundamental questions arising from these attempts, learning theory and maladaptive behaviour, and high level theoretical attempts to lay more secure foundations for experimental and observational studies along these lines.

## A Selection of Papers

The treatment of sexually unresponsive women: a comparative evaluation, **A WHITEHEAD** *et al.*

On the similarity of positive and negative intrusions, **S EDWARDS**, & **M DICKERSON**.

Test-retest reliability of psychophysiological assessment, **W F WATERS** *et al.*

Distraction during flooding (exposure): concordance between results in animals and man, **M BAUM**.

**Indexed/Abstracted in:** Current Contents/Social and Behavioural Sciences, Science Citation Index, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), Psychol. Abstr., PsychINFO, BIOSIS Database, PASCAL-CNRS Database, BRS Database, Psych Scan

# BIOCHEMICAL EDUCATION

A Quarterly Publication of the International Union of Biochemistry

Editor: **EDWARD J WOOD**, *Department of Biochemistry, University of Leeds, Leeds LS2 9JT, UK*

The primary objective of *Biochemical Education* is to assist in the teaching of biochemistry to science and medical students throughout the world. The editor welcomes articles on teaching technique and practice and on methods of assessment. Each issue contains a short review commissioned from a worker active in the field on a key area of biochemical knowledge. Such reviews are intended to provide background material for preparing lectures. Articles giving details of simple, tried and tested, class practical experiments are especially encouraged. Each issue contains reviews of books and other teaching aids such as films, videotapes, tape/slide sets and computer assisted learning programs.

## A Selection of Papers

New dimensions in vaccinology - the prospects for synthetic vaccines, **D N RAO** (India).

Biochemical education in Beijing Medical University, **Z AIRU** (China) & **Z NAIHENG** (China).

Biochemical education in Nigerian universities, **L JOSEFSSON** (Denmark).

Independent research projects in an undergraduate biochemistry laboratory, **R F BOYER** (USA).

Biochemistry in secondary education in Denmark, **J GRAAE** (Denmark).

Curriculum development in biochemistry in India, **C V RAMAKRISHAN** (India).

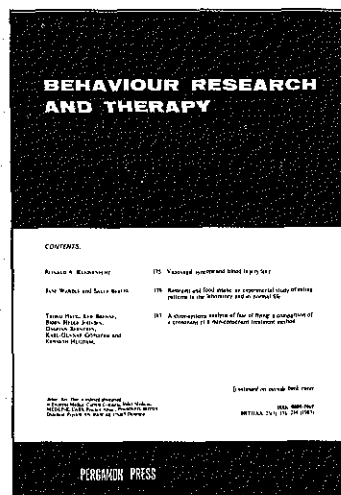
Underrated fundamentals: a student's guide to practical write-ups, **M S MASENTO** (UK) & **J GREEN** (UK).

The two aspects of laboratory exercises, **F VELLA** (Canada).

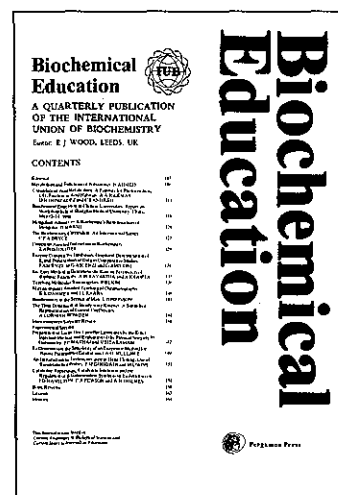
The poster and other forms of scientific communication, **M SAFFRAN** (USA).

Photosynthesis and the Calvin cycle: a CAL program, **J VILLALAIN** (Spain).

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Index to Journals in Education*



**Subscription Information**  
1988: Volume 26 (6 issues)  
ISSN: 0005-7967 (265)



**Subscription Information**  
1988: Volume 16 (4 issues)  
ISSN: 0307-4412 (604)



# CLINICAL HEMORHEOLOGY

A Companion Journal of *Biorheology*

Editors-in-Chief: **ALFRED L COPLEY**, *Laboratory of Biorheology, Polytechnic University, 333 Jay Street, Brooklyn, NY 11201, USA* and **SIEGFRIED WITTE**, *Medizinische Abteilung, Diakonissenkrankenhaus, Diakonissenstrasse 28, 7500 Karlsruhe 51, FRG*

Hemorheology, a branch of biorheology, concerns flow properties of blood and its components, as well as the rheology of structures of the vessel wall with which blood or its components come into direct contact. *Clinical Hemorheology* deals with the clinical aspects of this branch of science. They include pathogenesis, symptomatology, diagnostic methods, prophylactic and therapeutic measures. The aims of this journal are: (1) to be of service to clinical investigations and to hemorheological testing in the clinical laboratory or in blood transfusion centers, (2) to acquaint physicians and surgeons with hemorheology and to advance hemorheological diagnostic and therapeutic approaches toward better medical care.

## A Selection of Papers

Blood rheology in migraine, **E ERNST** *et al.*

Behavior of blood rheology and respiratory exchanges in a group of patients with chronic obstructive lung disease after acute diuretic treatment, **G CAIMI** *et al.*

Haemorheology and retinal disorders, **G D O LOWE** *et al.*

Experimental approaches to erythrocyte aggregation, **J F STOLTZ** *et al.*

Interpretation of rheograms for assessing RBC aggregation and deformability, **C LACOMBE** & **J C LEVIEVRE**.

Abstracts of the Fifth European Conference on clinical hemorheology.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Clinical Medicine, Current Awareness in Biological Sciences, Excerpta Medica, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 8 (6 issues)  
ISSN: 0271-5198 (633)

# CLINICAL PSYCHOLOGY REVIEW

Official Journal of the Division of Clinical Psychology (12) of the American Psychological Association

Editors-in-Chief: **ALAN S BELLACK**, *Department of Psychiatry, Medical College of Pennsylvania at EPPI, 3300 Henry Avenue, Philadelphia, PA 19129, USA* and **MICHEL HERSEN**, *Department of Psychiatry, Western Psychiatric Institute and Clinic, University of Pittsburgh, 3811 O'Hara Street, Pittsburgh, PA 15261, USA*

*Clinical Psychology Review* publishes substantive reviews of topics germane to clinical psychology. Its purpose is to help clinical psychologists keep up-to-date on relevant issues outside their immediate areas of expertise by publishing scholarly but readable reviews. Papers cover diverse issues, including: psychotherapy, psychopathology, behavior therapy, behavioral medicine, community mental health, assessment and child development.

## A Selection of Papers

Depression and physical illness: the previous causation and diagnosis of comorbidity, **H C SCHULBERG** (USA) *et al.*

Peer social dysfunction in children with developmental disabilities: empirical basis and a conceptual model, **J L WALLANDER** (USA) & **N C HUBERT** (USA).

Self-regulatory failure: a review with clinical implications, **D S KIRSCHENBAUM** (USA).

Assertiveness techniques as speech acts,

**H H GERVASIO** (USA).

Personality, sexual behavior and drug use revealed through latent variable methods, **P M BENTLER** (USA) &

**M D NEWCOMB** (USA).

The interpersonal basis of psychiatric symptoms,

**L M HOROWITZ** (USA) & **J VITKUS** (USA).

Schizophrenia during adolescence and early adulthood: a developmental perspective on risk research,

**J R ASARNOW** (USA) & **M J GOLDSTEIN** (USA).

Attention deficit disorder in adolescents,

**D P CANTWELL** (USA).

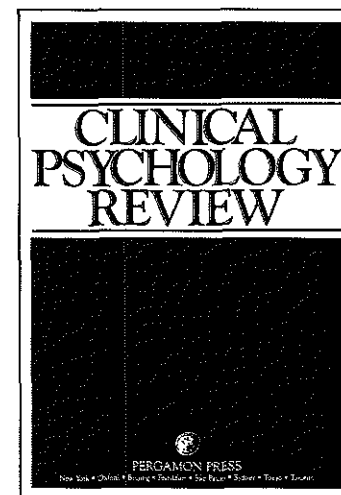
Behavioral approaches in the multidisciplinary management of chronic pain: programs and issues, **F J KEEFE** (USA) *et al.*

A critique of the theoretical bases of cognitive-behavioral theories and therapy, **D C BEIDEL** (USA) &

**S M TURNER** (USA).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Soc Sci Cit Ind, Psychol Abstr, PsycINFO, Beh Med Abstr, PsycSCAN*



**Subscription Information**  
1988: Volume 8 (6 issues)  
ISSN: 0272-7358 (652)

## BIOGENIC AMINES

The International Interdisciplinary Journal Reporting Basic and Clinical Research on Biogenic Amines, Amino Acid Transmitters and Stress

Chief Editors: **H PARVEZ**, *Unité de Neuropharmacologie, Université de Paris XI, Centre d'Orsay, Bât. 91405 Orsay, France*; **T NAGATSU**, *Department of Biochemistry, Nagoya University School of Medicine, Nagoya 466, Japan* and **C O RUTLEDGE**, *School of Pharmacy, Purdue University, West Lafayette, IN 47907, USA*

*Biogenic Amines* is an international interdisciplinary research journal publishing regular papers and short communications on all aspects of research on biogenic amines and amino acid transmitters, their related compounds and interaction phenomena. Original research data on catecholamines, serotonin and interacting compounds (amino acids, peptides, acetylcholine, phenol amines, histamine, polyamines and other biologically active amines) is reported in the journal. Papers from both basic research (methodology, histology, neurochemistry, biochemistry, enzymology, receptor studies, pharmacology, physiology and endocrinology) and clinical research (neurology, psychiatry, cardiovascular studies, internal medicine, gynaecology, immunology and oncology) are published.

### A Selection of Papers

Drug and neurotransmitter receptors: synaptic principles elucidated by GABA and benzodiazepines, **S H SNYDER** (USA) & **R R TRIFILETTI** (USA).

Increased basal and stress-induced sympathetic activity in rats with lesion or deafferentation of the medial basal hypothalamus, **R KVETNASKY** (Czechoslovakia) *et al.*

Neurotransmitter changes in dementia: failure to demonstrate relation to histopathologic lesions or multiple infarctions, **A CARLSSON** (Sweden) *et al.*

Biogenic amines in central mechanisms of neurogenic visceral alterations, **I S ZAVODSKAYA** (USSR) *et al.*

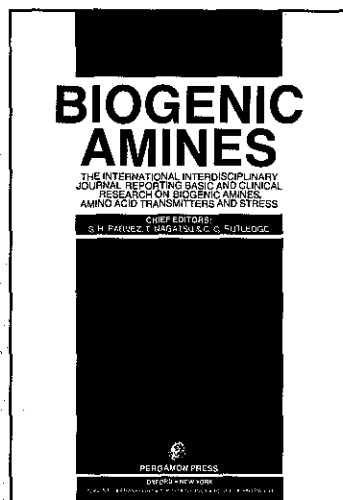
Serotonergic control of growth hormone secretion in anovulatory female rats, **M D COLLADO** (Spain) & **E AGUILAR** (Spain).

Calcium- and polyamine-induced aggregation of phosphatidylserine- and polyphosphoinositide-containing phospholipid vesicles, **L TILLEY** (France) *et al.*

Corticosterone-induced acute changes on biogenic amines' levels in some areas of the rat brain, **M E OTERO LOSADA** (Argentina).

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Contents/Life Sciences*

**Subscription Information**  
1988: Volume 5 (6 issues)  
ISSN: 0168-8561 (845)  
Formerly published by  
VNU Science Press



## BIOPHYSICS

A cover-to-cover translation of the Russian journal *Biofizika*

Editor-in-Chief: **A A KRASNOVSKII**

Translation Editor: **K B DAWSON**, *Gull Cottage, 11 Bayards Cove, Dartmouth, Devon, UK*

This is the primary Soviet journal devoted entirely to biophysics - a field of study in which Soviet scientists have placed great importance and are making very significant contributions. Articles published in *Biophysics* cover all aspects of the subject including cell and molecular biophysics, subcellular structure and the physical-chemical properties of ultrastructure, the basis of neural and muscular activity, the control theory of living organisms at all levels, theoretical studies in genetics and immunology, photosynthesis, the effects of ultrasound, ionising and ultra-violet radiations on biological structure.

### A Selection of Papers

Spectroscopy of enhanced combination scatter of biopolymers: water soluble proteins, amino acids and dipeptides adsorbed on silver electrodes and silver hydrosols, **I R NABIYEV** (USSR) & **G D CHUMANOV** (USSR).

Reactions of free radicals photo-induced in aqueous solutions of peptides in the presence of potassium ferricyanide, **K M L'VOV** (USSR) *et al.*

Macroscopic fluctuations in catalytic activity of alcohol dehydrogenase, **YE V YEVDOKIMOV** (USSR).

Elementary open enzymatic processes in which decaying oscillations and resonance are possible, **N P KAIMACHNIKOV** (USSR).

Bound water and the stability of a trihelical structure of the collagen type, **T B KHROMOVA** (USSR) & **YU A LAZAREV** (USSR).

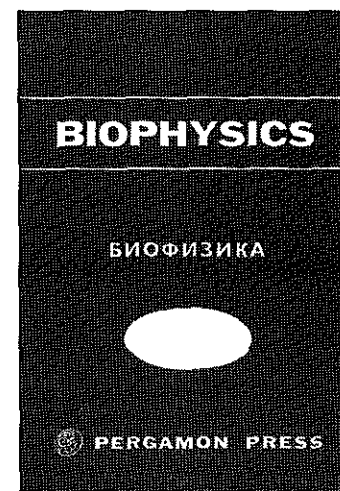
X-ray study of the collagen of marine invertebrates, **V I ROGULENKOVA** (USSR) *et al.*

Investigation of luminescent characteristics of mitochondrial actin-like protein, **A N STOZHAROV** (USSR).

Influence of the viscosity of the medium on the activity of myosin ATPase, **D E KHOSHTARIYA** (USSR) & **N G GOGUADZE** (USSR).

Effect of extraction and subsequent addition of manganese ions on the photo-oxidation of chlorophyll P<sub>680</sub> in preparations of photosystem II, **S I ALLAKHVERDIYEV** (USSR) *et al.*

**Subscription Information**  
1988: Volume 32 (6 issues)  
ISSN: 0006-3509 (268)



# COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY

## PARTS A,B,C

An International Journal

Editor: GERALD A KERKUT,

Department of Neurophysiology, The Medical School, University of Southampton, Southampton SO9 3TU, UK

*Comparative Biochemistry and Physiology* publishes papers that deal with the biochemistry, physiology, pharmacology and toxicology of invertebrate and vertebrate animals. Particular attention is paid to papers in which the subject is approached from a comparative point of view, and differences among species are demonstrated. There are many concise review articles and book reviews in addition to the primary papers which form the majority of the material published.

The journal is produced in three separate parts and subscribers can purchase each part separately or take out a combined subscription to PARTS A, B and C (209).

**PART A. COMPARATIVE PHYSIOLOGY** publishes papers on respiration; metabolism; digestion; osmoregulation; excretion; blood, heart, and circulation; endocrinology; muscle; sense organs; neurophysiology etc. of invertebrates and vertebrates.

### A Selection of Papers

The chemical composition of the follicular fluid of the teleost *Clinus dorsalis* (Perciformes: Clinidae), **D A CORNISH** (South Africa) & **W J VEITH** (South Africa).  
Photoreceptor evoked potentials and phototactic behaviour in *Cercaria caribbea* LXXI cable, **L E YOUNG** (UK) *et al.*  
Distribution of contractile proteins in single isolated smooth muscle cells from the ascidian body-wall muscle, **KIYOSHI FURUHASHI** (Japan) & **KAZUHIKO KONISHI** (Japan).  
Blood levels of thyroid hormones and certain metabolites in relation to moult in the harp seal (*Phoca groenlandica*), **T M JOHN** (Canada) *et al.*

**PART B. COMPARATIVE BIOCHEMISTRY** publishes papers on enzymology; alloenzymes; cell metabolism; mitochondrial respiration; serum proteins; DNA; RNA; porphyrins; blood pigments; lipids; sterols; carbohydrates; proteins; peptides; etc. of invertebrates and vertebrates.

### A Selection of Papers

Measurement of glucose and lipid metabolism in avian liver explants, **R W ROSEBROUGH** (USA) & **N C STEELE** (USA).  
Purification and partial characterization of an AMP deaminase from the marine invertebrate *Palaemon serratus*, **J P RAFFIN** (France) & **M T THEBAULT** (France).  
The role of GTP in the regulation of two forms of AMP deaminase from chicken kidney, **J SPYCHALA** (Poland) & **J MARSZALEK** (Poland).  
Bioassay and proteolytic activity of digestive enzymes from octopus saliva, **M S GRISLEY** (UK) & **P R BOYLE** (UK).

**PART C. COMPARATIVE PHARMACOLOGY AND TOXICOLOGY** publishes papers on action of drugs on animals, tissues and enzymes. Topics include the effects of heavy-metal poisoning, insecticides, pesticides and herbicides, neurotransmitters, anaesthetics, and acid rain on invertebrates and vertebrates. This section will interest workers on insecticides, molluscicides, antiprotozoan drugs, and the effects of pollutants.

### A Selection of Papers

Autonomic effects on protein secretion by rat submandibular salivary glands, **K ABE** (Japan).  
Effects of waterborne copper or zinc on the osmoregulatory response of bluegill to a hypertonic NaCl challenge, **A G HEATH** (USA).  
Receptor turnover and the action of 5-hydroxytryptamine on the salivary glands of the blowfly *Calliphora erythrocephala*, the housefly *Musca domestica* and frog skin epithelium, **T DALTON** (UK).  
Octopamine action on the contractile system of crustacean skeletal muscle, **L FISCHER** (GFR) & **E FLOREY** (GFR).

### Subscription Information

PART A: COMPARATIVE PHYSIOLOGY

1988: Volumes 89A - 91A (12 issues)  
ISSN: 0300-9629 (354)

### Subscription Information

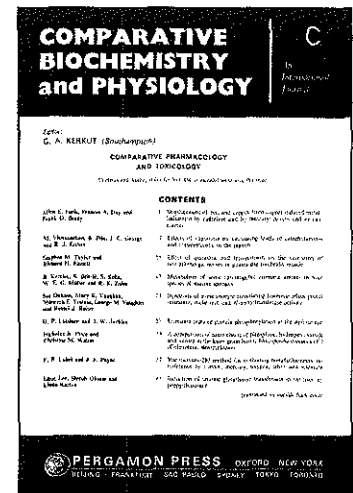
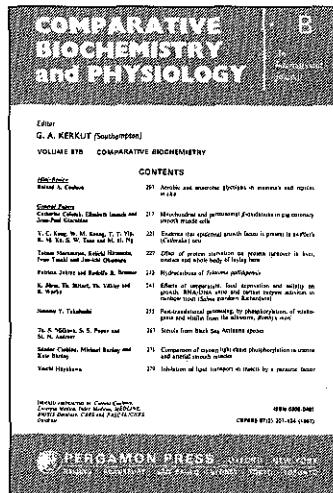
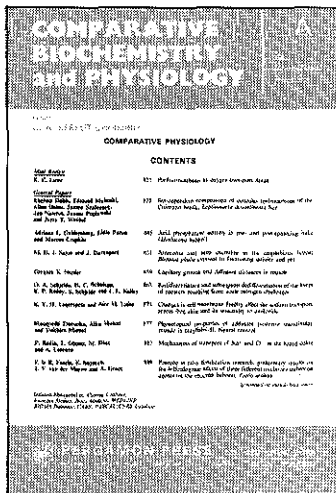
PART B: COMPARATIVE BIOCHEMISTRY

1988: Volumes 89B - 91B (12 issues)  
ISSN: 0305-0491 (355)

### Subscription Information

PART C: COMPARATIVE PHARMACOLOGY AND TOXICOLOGY

1988: Volumes 89C - 91C (6 issues)  
ISSN: 0306-4492 (405)



## BONE

An International Multi-Disciplinary Journal of Bone Cell Biology, Physiology and Pathology

Editors-in-Chief: **ROLAND BARON**, Department of Pathology & Medicine, Yale University School of Medicine, 333 Cedar Street, New Haven CT 06510, USA and **P J MEUNIER**, INSERM Unit No. 234, Pathologie des Tissus Calcifies, Faculté Alexis Carrel, Rue Guillaume Paradin, 69008 Lyon, France

*Bone* provides an interdisciplinary forum for the rapid publication of original experimental and clinical studies and review articles dealing with both normal and pathological processes which occur in bone or other tissues affecting bone metabolism. Well-documented case reports are also featured. Particular attention is placed on the application of experimental studies to clinical practice.

### A Selection of Papers

Effects of ovariectomy in Beagle dogs,

**R B MARTIN** (USA) *et al.*

Carbonic anhydrase isoenzymes in isolated rat peripheral monocytes, tissue macrophages, and osteoclasts,

**K T SUNDQUIST** (Finland) *et al.*

Failure of normal osteoclasts to resorb calcified cartilage from osteosclerotic (*ocloc*) mice *in vitro*, **M A VAN SLYKE** (USA) & **S C MARKS Jr** (USA).

The influence of age on bone mineral regulating hormones, **S EPSTEIN** (USA) *et al.*

Reversibility of nontraumatic disuse osteoporosis during its active phase, **Z F G JAWORSKI** (Canada) &

**H K UHTHOFF** (Canada).

Characterization of mitogenic activities extracted from bovine bone matrix, **T A LINKHART** (USA) *et al.*

Review Article: Vitamin D metabolism during pregnancy, **S K PAULSON** (USA) & **H F DELUCA** (USA).

Different metabolism of Vitamin D<sub>2</sub>/D<sub>3</sub> in epileptic patients treated with phenobarbitone/phenytoin,

**L TJELLESEN** (Denmark) *et al.*

The proliferation and differentiation of the bone-lining cell in estrogen-induced osteogenesis, **B M BOWMAN** (USA) & **S C MILLER** (USA).

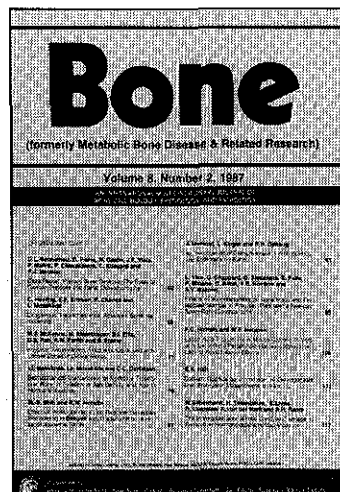
Light and electron microscopic demonstration of osteocalcin antigenicity in embryonic and adult rat bone,

**C G GROOT** (USA) *et al.*

Oral versus intravenous AHP, BP (APD) in the treatment of hypercalcemia of malignancy, **D THIEBAUD** (Switzerland) *et al.*

Osteoporosis in hypogonadal men: role of decreased plasma 1, 25-dihydroxyvitamin D, calcium malabsorption, and low bone formation, **R M FRANCIS** (UK) *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, CABS, BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, PASCAL-CNRS Database*



### Subscription Information

1988: Volume 9 (6 issues)

ISSN: 0221-8747 (677)

## BRAIN RESEARCH BULLETIN

(incorporating the *Journal of Electrophysiological Techniques*)

Editor: **MATTHEW J WAYNER**, Division of Life Sciences, University of Texas at San Antonio, San Antonio, TX 78285, USA

Since its founding more than a decade ago, *Brain Research Bulletin* has become known as a high-quality journal - both in content and presentation - publishing a broad spectrum of articles in the neurosciences. Distinguished by the excellence of its reports and superior reproduction of photomicrographs and other illustrations, the journal covers all aspects of brain research, including neuroanatomy, electrophysiology, neurochemistry, receptorology, neuroendocrinology, neuropharmacology and development. *Brain Research Bulletin's* contributions have concerned topics ranging from ultrastructure to behavior and experimental work ranging from the eye of limulus to the cerebral blood flow of humans. Appearing monthly, the journal emphasizes the rapid communication in typeset format of comprehensive articles, brief communications, meeting reports, reviews and special issues.

### A Selection of Papers

Anatomical mapping of the neuroepithelial projection to the olfactory bulb in the rat, **L ASTIC** & **D SAUCIER**.

Entry of DSIP peptides into dog CSF: role of physicochemical and pharmacokinetic parameters, **W A BANKS** *et al.*

A quantitative study of retrograde axonal transport in motor and sensory neurons, **D J FINK** *et al.*

Thy-1-like immunoreactivity in human brain during development, **A -CH GRANHOLM** *et al.*

Immunocytochemical localization of atrial natriuretic factor, galanin and calcitonin gene-related peptide within the rat interpeduncular nucleus, **G S HAMILL** *et al.*

Oxytocin-immunoreactive projections onto medullary adrenaline neurons, **M B HANCOCK** & **A P NICHOLAS**.

Glucose regulates <sup>3</sup>H(+)-Amphetamine Binding and Na<sup>+</sup>K<sup>+</sup>TPase activity in the hypothalamus: a proposed mechanism for the glucostatic control of feeding and satiety, **R HAUGER** *et al.*

The last issue of the *Journal of Electrophysiological Techniques* was Volume 14, No. 4 (1987).

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Science Citation Index, Excerpta Medica, Index Medicus, MEDLINE, MEDLARS, Current Awareness in Biological Sciences (CABS), BIOSIS Database.*

## BRAIN RESEARCH BULLETIN

### Subscription Information

1988: Volumes 20 & 21

(12 issues)

ISSN: 0361-9230 (830)

Formerly published by

ANKHO International Inc

# COMPUTER STATE OF THE ART REPORTS

Produced by **Pergamon Infotech**, Berkshire House, Queens Street, Maidenhead, Berkshire, UK

Each *Computer State of the Art Report* offers the most reliable and cost effective method of remaining abreast of state of the art topics in the computing industry.

Since its inception Pergamon Infotech has become renowned for its *Computer State of the Art Report* series. Eight reports are published annually, each addressing major technical and managerial issues in computing; including previously unpublished papers from the world's leading authorities, *PI Computer State of the Art Reports* have become standard reading for many professionals. In each report selected papers are analysed and discussed, and coordinated into an integrated framework by editors who literally know their subject from every angle.

A fully annotated bibliography and keyword index completes a comprehensive reference work that many DP departments have found essential to their planning and evaluation procedures.

Individual issues are available for purchase separately.

## Recently Published Reports

15:1 Analyst workbenches. Editor: **ROSEMARY ROCK-EVANS**.

15:2 Integrated project control. Editors: **ALAN BERRY & TONY DUHIG**.

15:3 Artificial intelligence. Editor: **RICHARD ENNALS**.

15:4 Parallel processing. Editors: **CHRIS JESSHOPE, RUSSELL O'GORMAN & JAMIE STEWART**.

15:5 Open systems interconnection. Editors: **BRIAN BURROWS & ALAN MAYNE**.

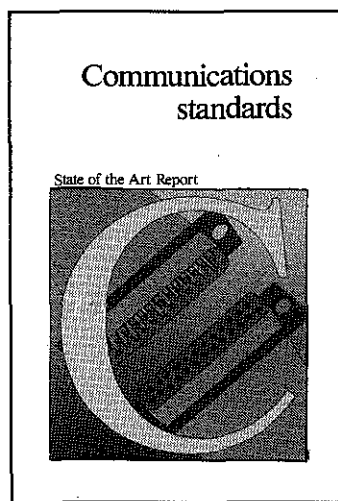
15:6 Electronic publishing. Editor: **ROBIN WILLIAMSON**.

## Subscription Information

1988: Volume 16 (8 issues)

ISSN: 0276-8267 (667)

Published by Pergamon Infotech Ltd.



# COMPUTERIZED MEDICAL IMAGING AND GRAPHICS

(Formerly *Computerized Radiology*)

The International Journal on Imaging and Image Archiving in All Medical Specialties

Editor-in-Chief: **ROBERT S LEDLEY**, Departments of Physiology and Biophysics and Radiology, Georgetown University Medical Center, Washington, DC 20007, USA

Co-Editor-in-Chief: **RUTH E DAYHOFF**, Departments of Physiology and Biophysics, Georgetown University Medical Center, Washington, DC 20007, USA

*Computerized Medical Imaging and Graphics* is a source of information concerning new developments in computerized medical imaging and graphics and the medical application of these to patient care. The journal publishes reports of research results in medical imaging techniques, modalities, analysis and clinical applications of medical images, surveys, reviews of medical imaging modalities, and other information related to medical imaging and graphics and their applications. The journal will provide for the rapid publication of original research papers, review articles, and tutorial papers in the fields of biomedical engineering, radiologic imaging (e.g. CT, MRI, DSA, PET, nuclear medicine) ultrasound, thermography, 3-D imaging, and optical and electron microscopy and in all medical specialties. In addition, the journal regularly features "A Guide to New Imaging and Graphic Technologies," a special section which presents information on new products in the field.

## A Selection of Papers

A relational database management system for graphics storage, **K SHIVARAMAKRISHNAN & S KISHORE**.

Image acquisition devices for biological research, **O J TRETIK & D L McEACHRON**.

Fluorescence imaging in biomedical research, **L TAYLOR**.

3-D molded view images from successive CT scans, **C PARK et al.**

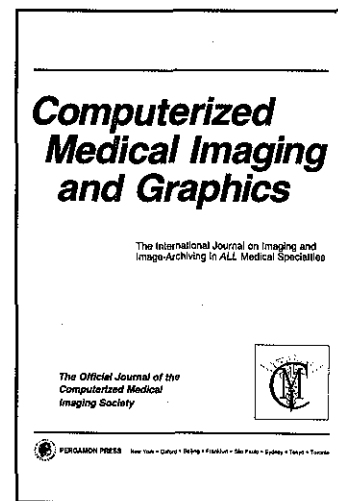
A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Eng Ind Monthly & Author Ind, Ophthal Lit, Computer & Info Systems Abstr, Safety Sci Abstr, Toxicology Abstr, BIOSIS Database, Computer Contents*

## Subscription Information

1988: Volume 12 (6 issues)

ISSN: 0895-6111 (292)



## BUILDING AND ENVIRONMENT

The International Journal of Building Science and its Applications

Editor: **C B WILSON**, *Department of Architecture, Edinburgh University, 20 Chambers St, Edinburgh EH1 1JZ, Scotland, UK*

*Building and Environment* publishes original papers and review articles on important topics in building and architectural research and articles describing and assessing application in building design and construction. The coverage of the journal encompasses:

- The environmental behaviour of buildings, components and materials
- R and D applications in contemporary design
- The history of building science and technology
- The environmental performance of traditional or vernacular buildings and settlements (including related economic, social and cultural matters)
- The integration of international technology and universal knowledge with local, social and cultural traditions
- Building maintenance, re-use and conservation and related topics including contextual development
- Climatic design and performance
- Human responses to the physical environment, indoors and out
- Social and individual health and the built environment
- Case studies of the application of building research in design, planning and policy making
- The philosophy and policies of building and architectural research
- Education for the building design professions

### A Selection of Papers

Man-made mineral fibres in the indoor, non-industrial environment, **T SCHNEIDER** (Denmark) & **G R LUNDQVIST** (Denmark).

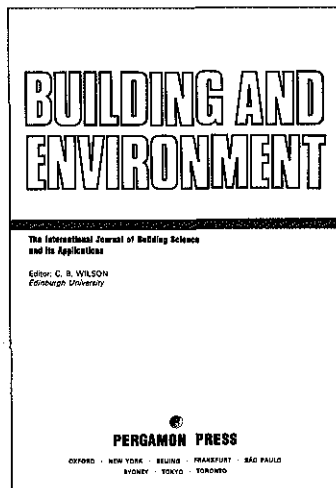
Relating actual and effective ventilation in determining indoor air quality, **M H SHERMAN** (USA) & **D J WILSON** (Canada).

Assessing ventilation systems in hot building environments, **A C PITTS** (UK).

The scaling of flows of energy and mass through stairwells, **A J REYNOLDS** (UK).

A critique of the environmental temperature model, **M G DAVIES** (UK).

**Indexed/Abstracted in:** *CABS Database, Engng Ind Monthly & Author Index, International Building Services Abstracts, IBSEDEX Database*



### Subscription Information

1988: Volume 23 (4 issues)

ISSN: 0360-1323 (296)

## BULLETIN OF LATIN AMERICAN RESEARCH

The Journal of the Society for Latin American Studies

Editors: **PAUL CAMMACK**, *Department of Government, University of Manchester, Manchester M13 9PL, UK*, **SYLVIA CHANT** and **RORY MILLER**, *Centre for Latin American Studies, University of Liverpool, PO Box 147, Liverpool L69 3BX, UK*

The *Bulletin of Latin American Research* is the journal of the Society for Latin American Studies. It publishes original research of current interest on Latin America from all academic disciplines in the general fields of the social sciences and humanities. In addition to long articles of original research the journal publishes shorter contributions on topical matters relevant to the study of Latin America, review articles, research in progress, book reviews and notes.

### A Selection of Papers

Neo-colonialism and Indian unrest in Southern Peru, 1867-1898, **M J GONZALES** (USA).

Fiestas and uneven capitalist development in Central Peru, **J LAITE** (USA) & **N LONG** (USA).

Further consideration of 'Facts and Figments in Bourbon Mexico', **R L GARNER** (USA).

Women in domestic service in Santiago, Chile: Research note, **D E HOJMAN** (USA).

Agricultural developments in Latin America since 1960: the unsustainable options, **M REDCLIFT** (UK).

Recent studies of the Porfiriato, **S MILLER** (UK).

The miners in colonial Potosi, **T SAIGNES** (France).



### Subscription Information

1988: Volume 7 (2 issues)

ISSN: 0261-3050 (754)

# COMPUTERS & EDUCATION

An International Journal

Editors: **DAVID F ROGERS**, *Aerospace Engineering Academy, US Naval Academy, Annapolis MD 21402, USA* and **PETER R SMITH**, *Department of Nuclear Engineering, Queen Mary College, Mile End Road, London E1 4NS, UK*

Computers are now commonly used in many aspects and at all levels of education and training. *Computers & Education* has established an international forum for communication of research and development in and implementation of computer applications in education. With the growing significance of computer mediated learning in primary and secondary education and in industrial training, the earlier emphasis on higher education has been broadened and papers describing developments and experience at any educational or training level are now published.

A prime requisite in developing any technology is the establishing of its supporting literature. After publication for more than a decade, *Computers & Education* provides a reference standard against which goals can be set and the state of the art assessed. It also provides an essential source of information for newcomers, both scientific and non-scientific.

## A Selection of Papers

Learning manufacturing variance analysis in accounting - computer assisted, **A H FRIEDBERG** (USA) *et al.*

An empirical approach for detecting program similarity and plagiarism within a university programming environment, **J A W FAIDHI** (UK) & **S K ROBINSON** (UK).

Computer based data acquisition in the undergraduate lab, **W J WEPFER** (USA) & **R L T OEHMKE** (USA).

The computational potential of rational approximations, **J GAL-EZER** (Israel) & **G ZWAS** (Israel).

A dialogue system to teach numerical analysis, **G J MAKINSON** (UK) & **H L MORARJI** (UK).

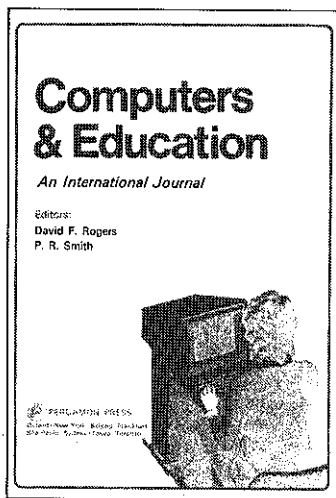
Towards a strategy for the introduction of information and computer literacy (ICL) courses, **T PLOMP** (The Netherlands) & **G CARLEER** (The Netherlands).

Achieving curriculum-integrated computing, **S MUDD** (USA) & **W WILSON** (USA).

The role of computer simulations in engineering education, **P R SMITH** (UK) & **D POLLARD** (UK).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Social Sciences Citation Index, CompuMath Citation Index, Computer Contents, INSPEC*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0360-1315 (347)

# COMPUTERS & ELECTRICAL ENGINEERING

An International Journal

Editors: **HARRIETT B RIGAS**, *Department of Electrical Engineering, Michigan State University, East Lansing, MI 48824, USA* and **JOHN B SLAUGHTER**, *University of Maryland, College Park, MD, USA*

*Computers & Electrical Engineering* presents authoritative research papers describing the relationships which exist between computer technology and the field of electrical engineering, and provides a means of dissemination of the applications of analog, hybrid and digital computers within the electrical engineering community.

The journal's scope encompasses computational aspects of digital signal processing, digital control, new algorithms, reliability and verification of computing systems, computer architecture, and VLSI design, with particular emphasis directed towards the technological issues associated with the design and development of new generation computers.

Descriptive computer programs which are documented to the extent necessary for reasonable facility of use by others and tutorial papers on new and emerging aspects of computer technology are also important features of the journal.

## A Selection of Papers

A new algorithm for second-order inverse-Chebyshev response, **L C JAIN** (Australia).

Design of power system stabilizers using the least-integral-square-error algorithm, **YUAN-YIH HSU** (China).

Design of a microcomputer based servomechanism controller, **C P DIDUCH** (Canada) & **R DORAISWAMI** (Canada).

Improved variable-entered Karnaugh map procedures, **A M RUSHDI** (Saudi Arabia).

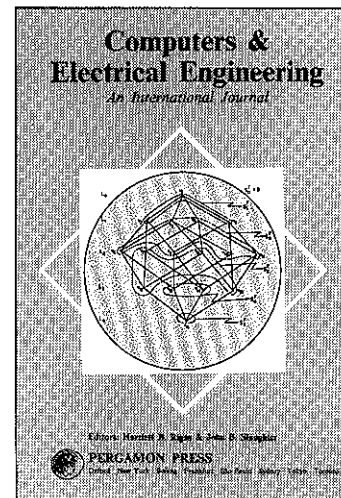
An improvement for Domino CMOS logic, **C ZHANG** (UK).

Iterative construction of binary lookahead addition trees, **C A PAPACHRISTOU** (USA).

A Software Survey section is included in this journal.

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *ISI/Compu Math, Computer Contents, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 14 (4 issues)  
ISSN: 0045-7906 (367)

# CANADIAN METALLURGICAL QUARTERLY

Published on behalf of the Canadian Institute of Mining and Metallurgy

Editor-in-Chief: **W M WILLIAMS**, *Department of Mining and Metallurgical Engineering, McGill University, 3450 University Street, Montreal, Quebec, H3A 2A7, Canada*

Devoted to the science, practice and technology of metallurgy, this journal provides a forum for the discussion and presentation of both basic and applied research developments in the areas of metallurgy and materials. Research papers are published on topics such as mineral processing, extractive metallurgy, alloy development and metal working.

Critical reviews of current research activities in extractive and physical metallurgy of Canadian interest are also encouraged.

## A Selection of Papers

Calculations related to flotation in an optimized coal cleaning system, **A JOWETT** (Australia) & **H W SMITH** (Canada).

Control of silica in the Bayer process used for alumina production, **S OSTAP** (Canada).

An efficient procedure for computing isothermal predominance diagrams, **C W BALE** (Canada) *et al.*

A study on the equilibrium between copper matte and slag, **R SHIMPO** (Japan) *et al.*

Active-passive anodic polarization behavior of Pd-based binary alloys, **T K VAIDYANATHAN** (USA) *et al.*

The influence of microstructure and strain on the toughness of welded joints in structural steels for offshore applications,

**J E M BRAID** (Canada) & **J T McGRATH** (Canada).

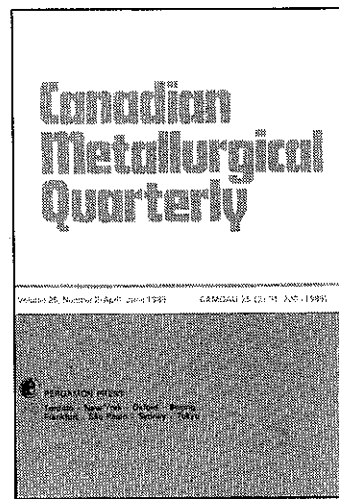
The creep kinetics of zinc-aluminium-based alloys, **S MURPHY** (UK) *et al.*

Solid-state reactions in Zn-Al based alloys, **N MYKURA** (UK) *et al.*

Twinning in cast and in cold worked copper alloys after annealing, **D LIU** (Canada) *et al.*

The use of accelerator techniques to study irradiation damage, **R DUTTON** (Canada) & **C S LIM** (Canada).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, Metals Abstracts, World Alum Abstracts*



**Subscription Information**  
1988: Volume 27 (4 issues)  
ISSN: 0008-4433 (345)

# CARBON

An International Journal Sponsored by the American Carbon Society

Editor-in-Chief: **P A THROWER**, *Department of Materials Science and Engineering, The Pennsylvania State University, University Park, PA 16802, USA*

This international journal provides a source and exchange of information on original research on the physics and chemistry, as well as the scientific and technological aspects of specific materials ranging from organic crystals and polymers through chars and carbons to graphite. The selected materials consist of those organic substances which are related to aromatic or tetrahedrally bonded carbonaceous solids, or which can be transformed into them by heat treatment or other means. Articles are published in English, German and French.

## A Selection of Papers

Magnetoresistance of graphite fibers, **I RAHIM** (USA) *et al.*  
Chemisorption of oxygen on carbon produced by electrochemical reduction of poly(tetrafluoroethylene),

**L KAVAN** (Czechoslovakia) *et al.*

Kinetics of petroleum pitch polymerization by gel permeation chromatography, **R A GREINKE** (USA).

The accelerating and retarding effects of hydrogen on carbon deposition on metal surfaces, **K L YANG** (USA) & **R T YANG** (USA).

Synthesis, characterization and electrical resistivity of graphite bi-intercalation compounds G-FeCl<sub>3</sub>-MCl<sub>3</sub> (M=Al, Ga, In) and the related binaries, **N E NADI** (France) *et al.*

Mechanism of water vapour gasification of carbon - a new model, **G HERMANN** (FRG) & **K J HÜTTINGER** (FRG).

Factors controlling the mode by which a catalyst operates in the graphite-oxygen reaction, **R T K BAKER** (USA).

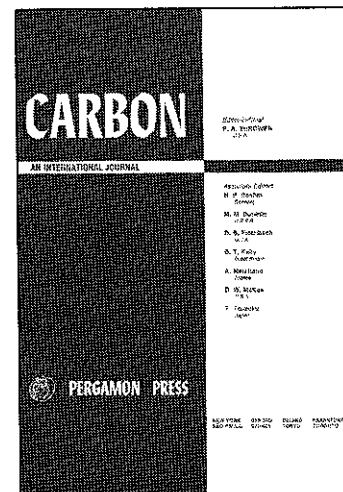
Generation of electron accepting surface sites in carbon blacks by peracetic acid oxidation, **J R HARBOUR** (Canada) *et al.*

Plasma treatment effect on the surface energy of carbon and carbon fibers, **J B DONNET** (France) *et al.*

The structure of physically adsorbed layers on graphite at low temperatures, **S C FAIN Jr.**

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, CABS, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 26 (6 issues)  
ISSN: 0008-6223 (258)



# COMPUTERS & GRAPHICS

An International Journal of Applications in Computer Graphics

Editor: **JOSE L ENCARNACAO**, *Technische Hochschule Darmstadt, FG Graphisch-Interaktive Systeme, Alexanderstrasse 24, D-6100 Darmstadt, FRG*

Associate Editor: **PETER BONO**, *Bono Associates Inc, P O Box 648, Gales Ferry, CT 06335, USA*

*Computers & Graphics* is dedicated to the dissemination of information on the application and use of computer graphics techniques. The journal will encourage articles on: (1) Research and applications of computer graphics. Emphasis will be placed on graphical man/machine interaction and the application of graphics to problem solving (2) Tutorial papers in the area of computer graphics (3) State-of-the-art papers on various aspects of computer graphics (4) Information on innovative uses of various graphics devices and systems.

*Computers & Graphics* provides a medium for the communication of information concerning graphical man/machine interaction and the applications of computer graphics. The emphasis of the journal is on interactive computer graphics using CRT-type consoles and manual input devices such as light-pens, tablets, and function keyboards, and within this scope, on graphical models, data structures, attention-handling languages, picture manipulation algorithms and related software.

## A Selection of Papers

Computational problems in the construction of plan curves, **P D MALLYA**.

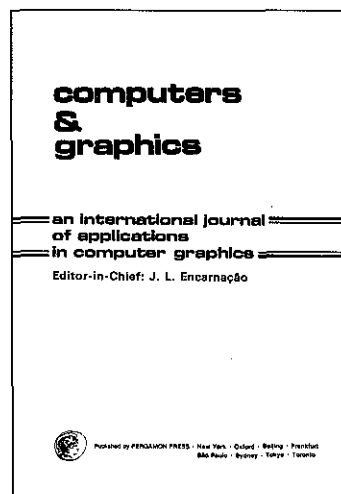
The hierarchical logic schematic capture, **S K SAXENA et al.**  
Algorithms for development of certain classes of ruled surfaces, **B GURUNATHAN & S G DHANDE**.

An approach to geometric modeling of solids bounded by sculptured surfaces, **K N RAMACHANDRAN NAIR & R SANKAR**.

A Software Survey section is included in this journal.

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents/Engineering, Technology & Applied Sciences, Computer Contents, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0097-8493 (371)

# COMPUTERS & INDUSTRIAL ENGINEERING

An International Journal

Editor: **HAMED KAMAL ELDIN** *School of Industrial Engineering and Management, Oklahoma State University, Stillwater, OK 74078, USA*

Associate Editors: **GARY E WHITEHOUSE**, *Industrial Engineering and Management Systems, University of Central Florida, Box 25000, Orlando, FL 32816, USA* and **JOHN Z NAZEMETZ**, *School of Industrial Engineering, Oklahoma State University, Stillwater, OK 74078, USA*

Computers and software developments are now integral to almost every area of the industrial engineering profession and the number is multiplying. Today's industrial engineers need to keep abreast of the latest developments and *Computers & Industrial Engineering* provides researchers, teachers and practitioners with methodologies for developing viable computer solutions to industrial engineering problems, ideas on implementing different industrial engineering techniques on computers and computerized industrial engineering applications.

## A Selection of Papers

Audit trails of System Replacement (SR) and user satisfaction: an empirical study of Micro, Mini and Mainframe computers using a telecommunication Decision Support System (DSS) network, **A RUSHINEK (USA) & S F RUSHINEK (USA)**.

Models to predict efficiency of two network flow based algorithms on the Time-Cost Trade-Off problem, **J S LAW (USA) & HSING-WEI CHU (USA)**.

A methodology for projecting course demands in academic programs, **B RAM (USA) et al.**

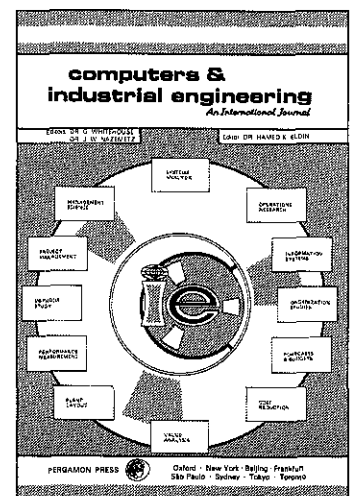
A recursive computer algorithm for determining joint probability inventory distributions, **S L LIDKE (USA) & E M MALSTROM (USA)**.

Performance measurement applied to large scale interactive computer systems, **F M CROFT (USA) & R T CANTRELL (USA)**.

Cell formation in group technology: a new approach, **S K KHATOR (USA) & S A IRANI (USA)**.

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents, Computer Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC, Software Reviews on File*



**Subscription Information**  
1988: Volumes 14 & 15  
(8 issues)  
ISSN: 0360-8352 (399)

# CEMENT AND CONCRETE RESEARCH

An International Journal

Editor-in-Chief: **DELLA M ROY**, *Materials Research Laboratory, Pennsylvania State University, University Park, PA 16802, USA*

This international journal features fundamental research results and comprehensive reviews in the field of cement, cement composites, concrete and other allied materials incorporating cement.

The broad scope of *Cement and Concrete Research* encompasses the physics and chemistry of cement and its hydration, and the interrelation of the chemical and (micro)-structural character with the mechanical properties, performance and durability of concrete.

## A Selection of Papers

Equilibria of the chemical composition of the concrete pore solution. Comparative study of synthetic and extracted solutions, **A MORAGUES** (Spain) *et al.*

High alumina cements. Study of CaO. Al<sub>2</sub>O<sub>3</sub> formation - I. Stoichiometric mechanism, **A N SCIAN** (Argentina) *et al.*

Characteristics of microcracking in concrete under static and repeated tensile loading, **M SAITO** (Japan).

The fracture toughness of concrete under impact loading, **S MINDESS** (Canada) *et al.*

Evolution microstructurale des composites du systeme ciment alumineux-granulat calcaire - I. Mode de propagation de la fissure, **A BACHIORRINI** (Italy) & **M MURAT** (France).

Selective dissolution of hydrated blast furnace slag cements, **K LUKE** (UK) & **F P GLASSER** (UK).

Low cement content high strength concrete, **T R NAIK** (USA) & **B W RAMME** (USA).

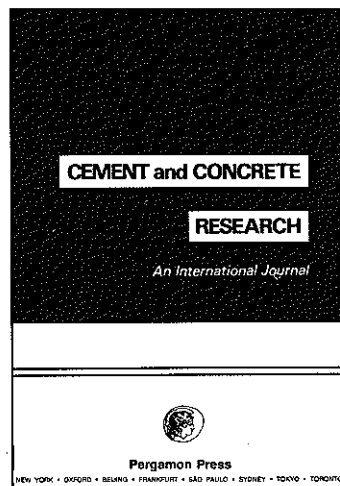
Carbonation of geothermal grouts - Part 3: CO<sub>2</sub> attack on grouts containing bentonite, **N B MILESTONE** (USA) *et al.*

Galvanized steel behaviour in Ca(OH)<sub>2</sub> saturated solutions containing SO<sub>4</sub><sup>2-</sup> ions, **A MACIAS** (Spain) &

**C ANDRADE** (Spain).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, Energy Data Base, Energy Res Abstracts, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 18 (6 issues)

ISSN: 0008-8846 (352)

# CENTRAL ASIAN SURVEY

The Journal of the Society for Central Asian Studies

Editor-in-Chief: **MARIE BROXUP**, *Society for Central Asian Studies, PO Box 131, Oxford OX1 2NJ, UK*

Associate Editor: **DAWN P JAMISON**

Book Review Editor: **DAVID MORISON**, *Central Asian Survey, PO Box 131, Oxford OX1 2NJ, UK*

*Central Asian Survey* is devoted to the study of the history, politics, cultures and economics of the peoples of the Central Asian region, which includes those territories and populations from western China to western Anatolia sharing a common historical, ethnic, cultural, religious and linguistic heritage. Foremost of these is Soviet Central Asia and its related Turk-Muslim territories in the Caucasus and the Middle Volga, but included as well are Eastern Turkestan (Chinese Xinjiang), Afghanistan, Iran and Turkey.

The historical importance of these lands with their unique and beautiful cultures and the recent unfolding of significant political, demographic, economic and military events in the region, which have precipitated new strategic linkages and raise the spectre of important local and regional change, make Central Asian studies an area of distinct interest.

## A Selection of Papers

Basmachi - I, **G FRASER** (UK).

Central Asia's New Dastans, **H B PAKSOY** (UK).

Was Tukay an atheist? On the occasion of his 100th anniversary, **N DEVLET** (Turkey).

Opposition in the USSR to the occupation of Afghanistan, **T KUZIO** (USSR).

The Turks of Bulgaria (1878-1985), **A POPOVIC** (France).

Disciples of the light - the Nurju movement in Turkey,

**P DUMONT** (France).

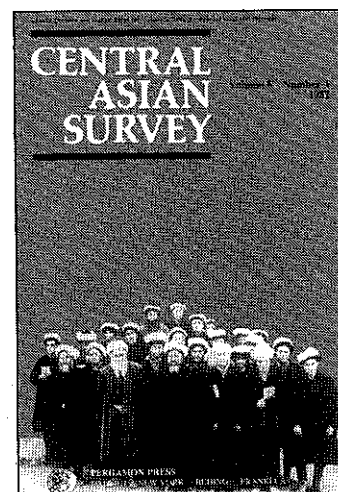
Yusuf Akçura: deuxième partie - le mouvement national des

Musulmans de Russie(1905-1908), **F GEORGEON** (France).

Chinese Islam: in pursuit of its sources, **F AUBIN** (France).

Ancient Chinese historical records about Central Asia,

**CUI-YI WEI** (China).



## Subscription Information

1988: Volume 7 (4 issues)

ISSN: 0263-4937 (753)

# COMPUTERS & STRUCTURES

An International Journal

Editor-in-Chief: **HAROLD LIEBOWITZ**, *School of Engineering and Applied Science, George Washington University, Washington DC 20052, USA*

*Computers & Structures* provides a medium for the communication of information concerning the applications of computers (digital, analog and hybrid) and computer programs to the solution of scientific and structural engineering problems related to hydrospace, aerospace and terrestrial structures. Particular attention is devoted to the practical engineering aspects of structural analysis, design and optimization.

Topics regularly covered include structural mechanics, fluid mechanics and oceanography as utilized to establish structural loading, soil mechanics and foundations engineering, geology and geophysics and materials science and engineering, including fatigue, creep, relaxation, fracture and stress corrosion.

The journal is intended to be of interest and utility to the researcher and practitioner in the academic, governmental and industrial communities.

## A Selection of Papers

A numerical study of errors in reduction methods,

**J L M CLEMENTE** (USA).

Solving discretized contact problems using linear programming,

**U FISCHER** (GDR) & **R J MELOSH** (USA).

Nonlinear analysis of general shell structures by flat triangular shell element, **KUO-MO HSIAO** (China).

Free vibration analysis of circular cylindrical shells,

**J W TEDESCO** (USA) *et al.*

Reliability of framed structures with initial imperfections,

**T Y KAM** (China).

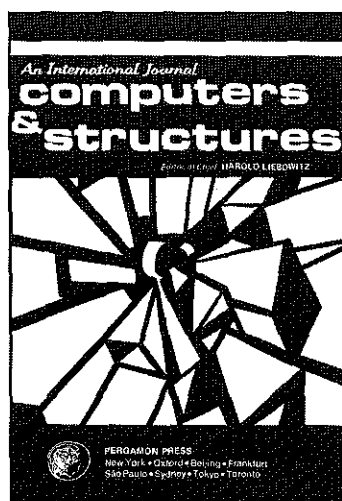
Iterative methods for solving boundary element equations,

**R L MULLEN** (USA) & **J J RENCIS** (USA).

A Software Survey section is included in this journal.

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents, Computer Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, Geodex Structural Info, Software Reviews, INSPEC*



## Subscription Information

1988: Volumes 28-30

(18 issues)

ISSN: 0045-7949 (359)

Pergamon Press

# COMPUTERS IN BIOLOGY AND MEDICINE

An International Journal

Editor: **ROBERT S LEDLEY**, *Departments of Physiology, Biophysics and Radiology, Georgetown University Medical Center, 3900 Reservoir Road NW, Washington, DC 20007, USA*

This journal is a medium of international communication on the revolutionary advances being made in the application of the computer to the fields of bioscience and medicine. It encourages the exchange of research, instruction, ideas and information on all aspects of the growing use of computers and focuses on such areas as: (1) Analysis of biomedical systems: Solutions of equations; (2) Synthesis of biomedical systems: Simulations; (3) Special medical data processing methods; (4) Special purpose computers and clinical data processing; and (5) Medical diagnosis and record processing.

## A Selection of Papers

Using artificial intelligence languages for the calculation of inbreeding coefficients - new tools for an old problem,

**J L DUPOUEY**.

Computer analysis of cardiovascular parameters,

**H J MASS** *et al.*

Friedman and Quade tests: basic computer program to perform nonparametric two-way analysis of variance and multiple comparisons on ranks of several related samples,

**E THEODORSSON-NORHEIM**.

Calculation of odds ratios on the TI-59 from logistic regression output, **R P HIRSCH**.

High-speed spline fitting, with application to boundary tracing in low-contrast digital images, **M A BROWNE** &

**P A GAYDECKI**.

A system for rapidly converting quadriceps contraction to a digital signal for use in microcomputer-oriented muscle therapy and stroke patient assessment schedules, **S B N THOMPSON**.

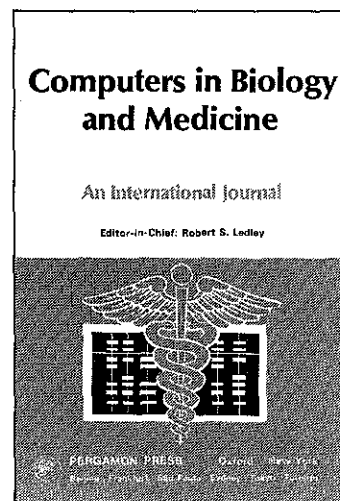
A first step quantification by correlation techniques of the variability in some time intervals measured on the Politecnico/Ca' Granda VCG Database on young normal subjects,

**F PINCIROLI** & **E TURRI**.

A Software Survey section is included in this journal.

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Contents/Engineering Technology & Applied Sciences, Index Medicus, Excerpta Medica, MEDLINE, MEDLARS, CABS, BIOSIS Database, Engng Ind Monthly & Author Index, Computer Contents, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volume 18 (6 issues)

ISSN: 0010-4825 (351)

# CHILD ABUSE & NEGLECT

The International Journal

The Official Publication of the International Society for Prevention of Child Abuse and Neglect

Editor-in-Chief: **RICHARD D KRUGMAN**, Associate Professor of Pediatrics, University of Colorado School of Medicine, Denver, CO 80220, USA

*Child Abuse & Neglect, The International Journal*, provides a multidisciplinary forum on all aspects of child abuse and neglect including sexual abuse, with special emphasis on prevention and treatment. The scope extends to all those aspects of life which either favor or hinder optimal family interaction.

The journal publishes a wide range of material including: original (theoretical and empirical) contributions, and review articles describing the current situation in specific areas, exchange ideas, brief communications, and Letters to the Editor. The journal provides a topical, international medium of communication in a field of rapidly increasing concern.

### A Selection of Papers

Developmental effects of child abuse: recent findings, **M AUGOSTINOS**.

Maltreated children's developmental scores: treatment versus nontreatment, **R E CULP et al.**

Growth at the age of 4 years subsequent to early failure to thrive, **B KRISTIANSOON & S P FALLSTROM**.

Social support and child maltreatment: a review of the evidence, **E A W SEAGULL**.

The medical and psychosocial needs of children entering foster care, **N J HOCHSTADT et al.**

Mental health care for foster children in California, **L KLEE & N HALFTON**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Soc Sci Cit Ind, Psychol Abstr, Sociol Abstr, Except Child Ed, Res ERIC/CIJE, Adolescent Mental Health Abstr, Index Medicus, MEDLINE*

# CHILDREN AND YOUTH SERVICES REVIEW

An International Multidisciplinary Quarterly Review of the Welfare of Young People

Editor: **DUNCAN LINDSEY**, College of Human Development and Performance, University of Oregon, Eugene, OR 97403, USA

This Review encourages research from various sources to be focused on programs and policies to support the welfare of children and youth. The journal serves as a multidisciplinary meeting ground for the highest standards of critical and considered inquiry into the issues and service programs affecting children and seeks a confluence of science and humanities in the area of child welfare. Evaluation studies of service programs are particularly encouraged. Topics include such issues as children's rights, day care programs, youth employment programs, and studies of institutions serving children and youth.

### A Selection of Papers

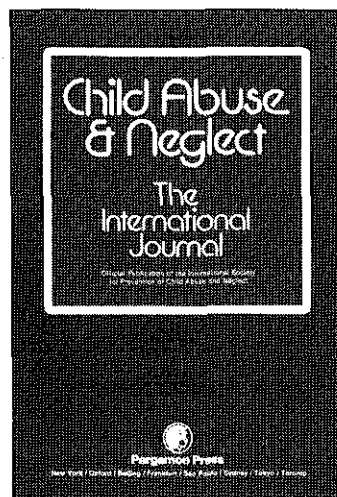
Blending informal and formal helping networks in foster care, **R E LEWIS & M FRASER**.

Communicating health information in the California foster care system: problems and recommendations, **L KLEE & N HALFTON**.

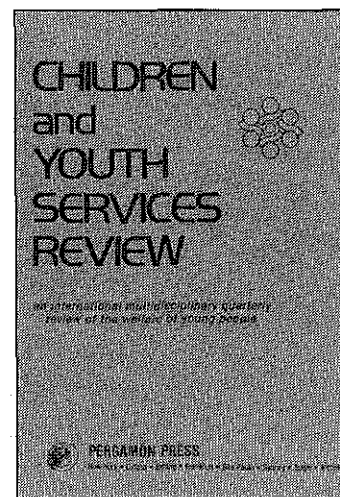
Economic considerations in supporting preventive services for troubled youth: the case of adolescents on the farm, **J BEKER et al.**

A national study of educational reform: implications for social work services in schools, **P ALLEN-MEARES**.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Soc Sci Cit Ind, Psychol Abstr, PsycINFO, Sociol Abstr, Except Child Ed Res, Sage Fam Stud Abstr, Adolescent Mental Health Abstr, Criminal Justice Abstr, Child Devel Abstr & Bibliog*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0145-2134 (586)



**Subscription Information**  
1988: Volume 10 (4 issues)  
ISSN: 0190-7409 (556)

# CORROSION SCIENCE

Official Journal of the Institution of Corrosion Science & Technology

Editor-in-Chief: **J C SCULLY**, *Department of Metallurgy, Houldsworth School of Applied Science, University of Leeds, Leeds LS2 9JT, UK*

Occurrence of corrosion and its practical control is an area of study covering a wide range of scientific knowledge. *Corrosion Science* is a well established journal which provides a medium for the communication of ideas, developments and research in all aspects of the field.

The scope of this international journal is very extensive. Published papers range from the highly theoretical to the essentially practical and cover such areas as high temperature oxidation, passivity anodic oxidation, biochemical corrosion, stress corrosion cracking, and mechanisms and methods of corrosion control.

*Corrosion Science* publishes an appropriate balance of papers drawn from both corrosion science and corrosion technology and will serve as an authoritative reference work for anyone involved in engineering and materials sciences.

## A Selection of Papers

The mechanism and kinetics of corrosion product release from stainless steel in lithiated high temperature water, **D H LISTER** (Canada) *et al.*

The hot corrosion of nickel-based ternary alloys and superalloys for gas turbine applications - I. Corrosion in  $SO_2/O_2$  atmospheres, **P S SIDKY** (UK) & **M G HOCKING** (UK).

The hot corrosion of nickel-based ternary alloys and superalloys for gas turbine applications - II. The mechanism of corrosion in  $SO_2/O_2$  atmospheres, **M G HOCKING** (UK) & **P S SIDKY** (UK).

A stress corrosion cracking mechanism based on surface mobility, **J R GALVELE** (Argentina).

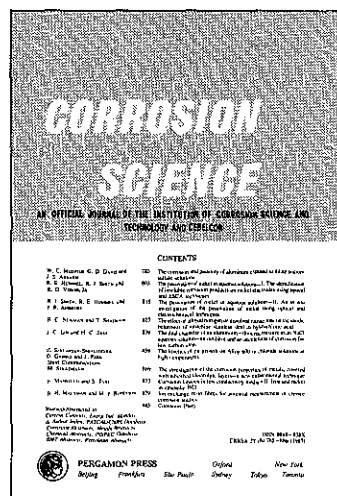
Stress corrosion cracking at constant load of 304lb stainless steel in molten NaCl-CaCl<sub>2</sub> at 570°C, **H ATMANI** (France) & **J J RAMEAU** (France).

The effects of various amounts of alloyed cerium and cerium oxide on the high temperature oxidation of Fe-10Cr and Fe-20Cr alloys, **T N RHYS-JONES** (UK) *et al.*

Inhibition mechanism of S-containing additives towards intergranular corrosion of a sensitized stainless steel, **A FRIGNANI** (Italy) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BMT Abstracts, Corrosion Abstracts, Engng Ind Monthly & Author Index, INSPEC, Metals Abstracts, PASCAL-CNRS Database*

**Subscription Information**  
1988: Volume 28 (12 issues)  
ISSN: 0010-938X (260)



# COSPAR INFORMATION BULLETIN

(Committee on SPace Research)  
Executive Secretary of COSPAR and Editor of COSPAR Information Bulletin: **Z NIEMIROWICZ**, *COSPAR Secretariat, 51 Boulevard de Montmorency, 75015, Paris, France*

## The Origin and Aims of COSPAR

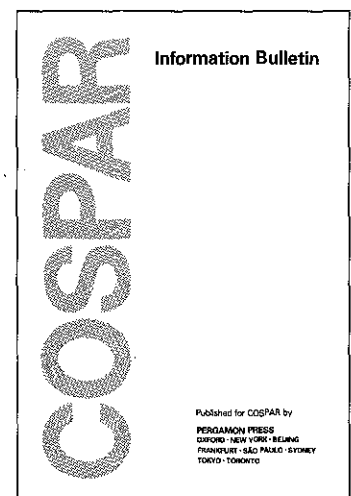
The Committee on Space Research (COSPAR) was established by the International Council of Scientific Unions in October 1958 to continue the cooperative programmes of rocket and satellite research successfully undertaken during the International Geophysical Year of 1957-58. The ICSU resolution creating COSPAR stated that the primary purpose of COSPAR was to "provide the world scientific community with the means whereby it may exploit the possibilities of satellites and space probes of all kinds for scientific purposes, and exchange the resulting data on a cooperative basis".

Hence, COSPAR is an interdisciplinary scientific organization concerned with progress on an international scale of all kinds of scientific investigations carried out with space vehicles, rockets and balloons.

COSPAR's objectives are carried out by the international community of scientists working through ICSU and its adhering national academies and international Scientific Unions. Operating under the rules of ICSU, COSPAR ignores political considerations and considers all questions solely from the scientific viewpoint.

The *COSPAR Information Bulletin* has been published since 1960. *The Bulletin* addresses not only researchers connected with COSPAR but also other scientists and the lay public active or interested in the latest developments in scientific space activities. Its contents include the following regular items related to space research: Information on past and future meetings; News from international and national institutions and organizations; Survey of satellites and space probes; International Geophysical Calendar (published in the December issue); and Information on publications.

**Subscription Information**  
1988: (3 issues)  
ISSN: 0045-8732 (587)



New in 1988

## CHINESE JOURNAL OF MECHANICAL ENGINEERING

Sponsored by The Chinese Mechanical Engineering Society

Editorial Office: No.1 Nanli Baiwanzhuang, Beijing, P.R.China  
Editor-in-Chief LEI TIANJIAO, formal Chief Engineer of the Academy of Mechanical Science; Divisional Member of The Chinese Academy of Sciences

The *Chinese Journal of Mechanical Engineering* provides a forum for authoritative academic and technical papers in mechanical science and technology. Significant advances and achievements in the field which are creative, comprehensive and multidisciplinary are reported. Topics include: basic theories, designs, manufacturing processes, education and scientific management in mechanical engineering.

This well-established journal gives an insight into the state of research in all aspects of Chinese mechanical engineering: research, design, manufacture, application and education.

### Some forthcoming papers

Experimental study of condensation heat transfer for cooling gas flow containing water vapour, **B WANG et al**

A new calculation method of the three-dimensional contact points on tooth surface of crossed helical gears, **C CAO**

The identification of the state space model for machine tools by the frequency response test, **X WANG**

The investigation and application of sulphur-nitro-carburization, **Y HU et al**

Dynamic identification of vibration system in the time domain, **Q ZHI & W ZHANG**

General formulas for tool cutting angles, **D YUE**

Numerical analysis of the stress-strain cycles caused by GTA spot welding of thin plate—A study of the specific features of transient welding thermal elasto-plastic stress-strain formation in titanium alloys, **Y CAO et al**

### Subscription Information

1988: Volume 1 (2 issues)

ISSN: tba (855)

Newly Acquired for 1988

## CHINESE SCIENCE ABSTRACTS

Edited by: Science Press, Academia Sinica

*Chinese Science Abstracts* provides unique coverage in abstracts form of more than 120 of China's leading scientific journals. The publications are selected and abstracted by specialists from Science Press, the publishing division of Academia Sinica ensuring that coverage is comprehensive and of the highest quality. The most important scientific research being undertaken in China is therefore covered by Chinese Science Abstracts. *Chinese Science Abstracts* is the only English language abstracts publication produced in China and therefore provides information unobtainable elsewhere. The service is fast, with abstracts normally published 4 months after the original journals are published. A document delivery service is available enabling subscribers to obtain the full text (in English) of the original article. *Chinese Science Abstracts* is divided into 2 parts available separately or as a combined subscription.

Part A is published every odd-numbered month, containing about 500 abstracts per issue in the field of mathematics, mechanics, astronomy, physics and technical sciences.

Part B is published every even-numbered month, containing about 700 abstracts per issue in the field of chemistry, life sciences and earth sciences. Both parts also contain extensive author and subject indexes in each issue.

### Contents

**Part A:** Mathematics, Mechanics, Astrophysics and Space Science, Physics, Technology, Keyword Index, Author Index

**Part B:** Chemistry, Life Science, Earth Science, Keyword Index, Author Index

## CHINESE SCIENCE ABSTRACTS

MATHEMATICS  
MECHANICS  
ASTRONOMY  
AND SPACE SCIENCE  
PHYSICS  
TECHNICAL SCIENCES

A

CHEMISTRY  
LIFE SCIENCES  
EARTH SCIENCES  
(incl. Agriculture)

B

### Subscription Information

1988: Volume 7

Part A: 6 issues (857)

Part B: 6 issues (858)

(Parts A & B (859))

# CURRENT ADVANCES IN CELL & DEVELOPMENTAL BIOLOGY

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Cell & Developmental Biology* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical, and, above all, easy to use. By retrieving more than 18,000 titles annually, *Current Advances in Cell & Developmental Biology* enables pure and applied research scientists to keep abreast of the ever-increasing literature being published in their subject area.

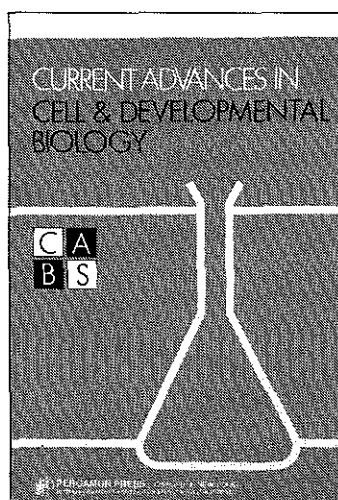
More than 1,350 biological journals covering all aspects of cell and developmental biology are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 88 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

### Major Subject Areas Covered Include

Membrane structure and function, Extracellular matrix, Cell cycle, Cell growth, Cell motility, Cell behaviour, Gametogenesis, Fertilization, Differentiation, Vertebrate tissue and organ formation and development, Metamorphosis and developmental hormones.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
1988: Volume 5 (12 issues)  
ISSN: 0741-1626 (733)

# CURRENT ADVANCES IN CLINICAL CHEMISTRY

(Formerly *Current Clinical Chemistry*)

An Official Journal of the Association of Clinical Biochemists

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Clinical Chemistry* is published monthly as part of the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 11,500 titles annually, *Current Advances in Clinical Chemistry* enables all those working in the fields of clinical chemistry, medical biochemistry, physiological chemistry and related fields to keep abreast of the ever-increasing literature being published in their subject area.

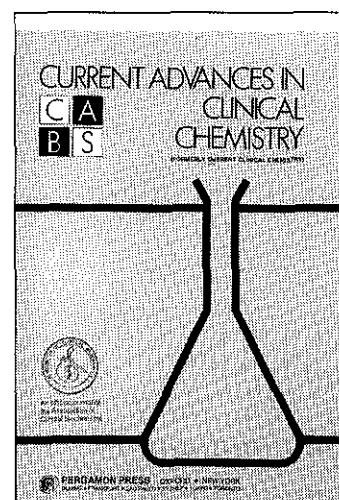
More than 1,000 biological journals are scanned by an experienced team of editors to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 29 major subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

### Major Subject Areas Covered Include

Laboratory management and methods, Heart and cardiovascular system, Liver and bile, Kidney, Gastrointestinal tract, Pancreas, Endocrinology, Neuroendocrinology and chemistry, Acid-Base balance and blood gases, Pregnancy, Paediatric clinical chemistry, Inborn errors of metabolism, Calcium, phosphate and bone metabolism, Joint and urate metabolism, Trace elements, Vitamins, Clinical enzymology, Proteins, Lipids, Haem synthesis and porphyria, Toxicology, Therapeutic drug monitoring.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
1988: Volume 15 (12 issues)  
ISSN: 0885-1980 (397)

# CLINICAL BIOCHEMISTRY

The Official Journal of the Canadian Society of Clinical Chemists

Co-Editors: **D M GOLDBERG**, *Biochemist-in-Chief, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8* and **W H C WALKER**, *Department of Pathology, McMaster Medical Center, 1200 Main Street West, Hamilton, Ontario, Canada L8S 4J9*

*Clinical Biochemistry* publishes articles relating to the applications of molecular biology, biochemistry, chemistry and immunology to clinical investigation and to the diagnosis, therapy and monitoring of human diseases. Continuously cited by competitive publications, *Clinical Biochemistry* features analytical and clinical papers as well as invited critical reviews from around the world. The journal, peer-reviewed and edited by an international board, is the official publication of the Canadian Society of Clinical Chemists and is a valuable tool not only to clinical chemists, but to researchers in the related areas of pathology, immunology, endocrinology and pharmacology. Now in its 21st year of publication, *Clinical Biochemistry* is an important source of information on advancements in clinical investigation.

## A Selection of Papers

Maternal phenylketonuria (PKU) - a review, **W B HANLEY** (Canada) *et al.*

A rapid enzymatic assay for total blood polyamines, **K ISOBE** (Japan) *et al.*

Use of malate dehydrogenase immobilized on the dialzer groove of the autoanalyzer II for serum aspartate aminotransferase determination, **P H LOLEKHA** (Thailand) *et al.*

A method for the sequential colorimetric determination of serum triglycerides and cholesterol, **A SHARMA** (USA) *et al.*

Determination of urinary homovanillic and vanillylmandelic acids from dried filter paper samples: assessment of potential methods for neuroblastoma screening,

**M TUCHMAN** (Canada) *et al.*

Immunoturbidimetry: an attractive technique for the determination of urinary albumin and transferrin,

**N RIFAI** (USA) *et al.*

Purification and characterization of immunosuppressive (IS) substance obtained from ascitic fluids of patients with gastrointestinal cancer, **M FUJII** (Japan) *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Science, Index Medicus, MEDLINE, MEDLARS, SCISEARCH, Science Citation Index, ISI BIOMED, Current Awareness in Biological Sciences (CABS)*

# CLINICAL BIOCHEMISTRY REVIEWS

Editors-in-Chief: **D M GOLDBERG**, *Biochemist-in-Chief, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8* and **W H C WALKER**, *Department of Pathology, McMaster Medical Center, 1200 Main Street West, Hamilton, Ontario, Canada L8S 4J9*

*Clinical Biochemistry Reviews* is a biennial volume compiled from critical reviews published in *Clinical Biochemistry*. The authors, well-known authorities on the areas they review, cover a range of topics while focusing on those areas of clinical biochemistry where exciting advances have recently occurred: biochemical genetics, neuro-biochemistry, chronopharmacology and bilirubin metabolism. Authors will have up-dated their contribution.

## A Selection of Papers

Use of cultured human cells for biochemical analysis, **M BUCHWALD**.

A review of the clinical presentations and laboratory findings in two uncommon hereditary disorders of sulfur amino acids metabolism: beta-mercaptolactate-cysteine disulfiduria and sulfite oxidase deficiency, **J C CRAWHALL**.

Red cell enzymopathies (molecular mechanisms),

**J-C DREYFUS & A KAHN**.

Lecithin cholesterol acyltransferase (LCAT), **J FROHLICH & R MCLEOD**.

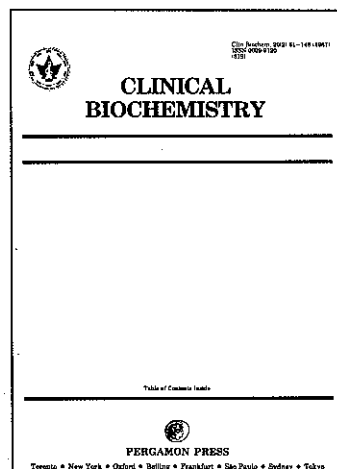
Clinical disorders of porphyrin metabolism, **J T HINDMARSH**.

Human serum vitamin B<sup>12</sup> assay methods - a review, **D S C LEE**.

Antibody interference with biochemical tests and its clinical significance, **M R PUDEK**.

Purine enzymes and immune functions, **R W E WATTS**.

Delta bilirubin - the state of the art and future approach, **TAI-WING WU**.



## Subscription Information

1988: Volume 21 (6 issues)

ISSN: 0009-9120 (819)

## Subscription Information

1987: Volume 1 (1 issue)

1989: Volume 2 (1 issue)

Published every alternate

year

ISSN: 0272-9881 (844)



# CURRENT ADVANCES IN IMMUNOLOGY

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Immunology* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database* designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 20,500 immunology titles annually, *Current Advances in Immunology* enables pure and applied immunologists to keep abreast of the ever-increasing literature being published in their subject area.

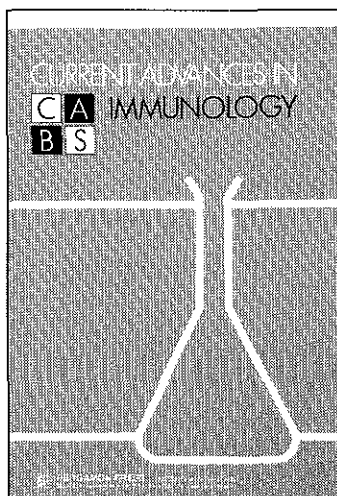
More than 1,800 biological journals covering all aspects of immunology are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 53 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

## Major Subject Areas Covered Include

Immunoglobulin, Complement, Interferon, Antigen presentation, Major histocompatibility antigens, Transplantation, Anti-bacterial immunity, Immunodeficiency, Immune complexes, Autoimmunity, Neoplasia of immune system, Tumour immunity, Immune regulation, Network theory, Immunopharmacology and immunotoxicology, Mucosal and oral immunity, Comparative immunology, Techniques, Studies with monoclonal antibodies.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
1988: Volume 5 (12 issues)  
ISSN: 0741-1650 (736)

# CURRENT ADVANCES IN MICROBIOLOGY

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Microbiology* is a publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 33,000 microbiology titles annually, *Current Advances in Microbiology* enables pure and applied microbiologists to keep abreast of the ever-increasing literature being published in their subject area.

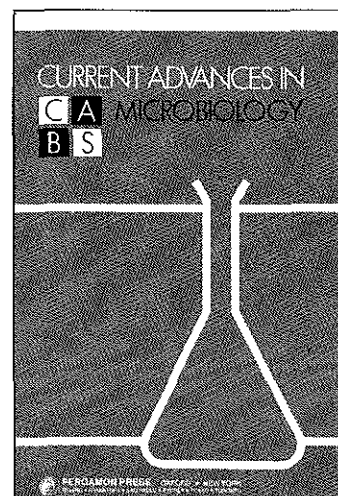
More than 2,100 biological journals covering all aspects of microbiology are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 121 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

## Major Subject Areas Covered Include

Microbial biochemistry, Prokaryotes, Fungal growth and differentiation, Fungal physiology, Yeasts, Slime moulds, Protozoa, Viruses, Microbial ecology, Public health, water and sewage, Food microbiology, Biotechnology, Plant pathology, Medical and veterinary protozoology, Medical and veterinary mycology, Medical and veterinary bacteriology, Medical and veterinary virology, Antibiotics and chemotherapeutics, Antimicrobials.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
1988: Volume 5 (12 issues)  
ISSN: 0741-1669 (737)

## CLINICAL VISION SCIENCES

Editors: **R F HESS**, *Physiological Laboratory, Cambridge CB2 3EG, UK* (Distributing Editor for Europe, Africa, Far East and Australasia) and **I BODIS-WOLLNER**, *Department of Neurology, Mount Sinai School of Medicine, 1200 Fifth Avenue, New York, NY 10029, USA* (Distributing Editor for the North and South American Continents)

Associate Editor: **E ZRENNER**, *Laboratories of the Max-Planck Institute for Physiological and Clinical Research, University Eye Hospital, Mathilden Str 8, 8000 Munich 2, FRG*

The primary aim of *Clinical Vision Sciences* is to promote communication among workers in basic and clinical vision research. The journal will encourage the publication of detailed studies that use clinical material to address important issues in basic science. It will also encourage the use of basic scientific methods to address questions of clinical relevance. The word clinical is used in a very broad sense, such that studies on animals and normal human observers, if of general relevance to clinical issues, will also be welcomed. A second aim of this journal is to bring together in one place the important studies in the many diverse areas of basic vision research that impinge upon the clinical domain. These areas include psychophysics, electrophysiology, visual development (animal and human), neuropharmacology, animal models (behaviour, electrophysiology and pathology), eye-movements, geometric and physiological optics.

This is a journal with wide interests, a clinical bias and an overriding emphasis on basic science.

### A Selection of Papers

Orientation-dependent loss of contrast sensitivity for pattern and flicker in multiple sclerosis, **D REGAN** (Canada) & **C MAXNER** (Canada).

Silent dopaminergic synapse at feline retinal ganglion cells, **H IKEDA** (UK) *et al.*

Fixation, pursuit and optokinetic nystagmus in a complete achromat, **L T SHARPE** (FRG) *et al.*

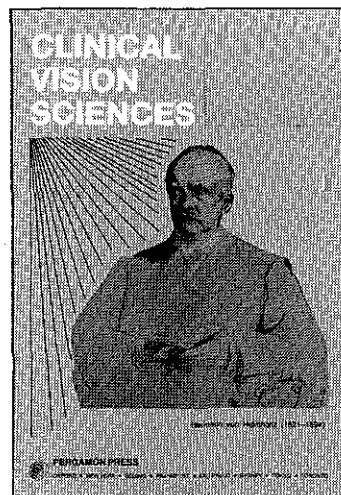
Abnormalities in luminance threshold, chromatic and luminance flicker fusion, and other temporal measures in multiple sclerosis, **D H FOSTER** (UK) *et al.*

Dark-adaptation in a rod monochromat: effect of stimulus size, exposure time and retinal eccentricity,

**B STABELL** (Norway) *et al.*

Characteristics of the rod-cone transition in electroretinogram and optic nerve response, **T SCHNEIDER** (FRG) *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Awareness in Biological Sciences (CABS), Excerpta Medica*



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# CURRENT ADVANCES IN PHYSIOLOGY

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Physiology* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 23,000 physiology titles annually, *Current Advances in Physiology* enables pure and applied physiologists to keep abreast of the ever-increasing literature being published in their subject area.

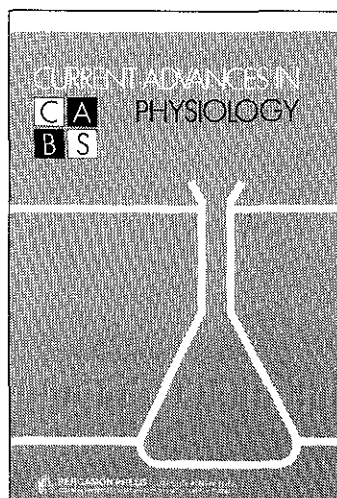
More than 1,580 biological journals covering all aspects of physiology are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 102 subject headings with full cross-referencing.

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# CURRENT ADVANCES IN PLANT SCIENCE

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Plant Science* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 30,000 titles annually, *Current Advances in Plant Science* enables pure and applied plant scientists to keep abreast of the ever-increasing literature being published in their subject area.

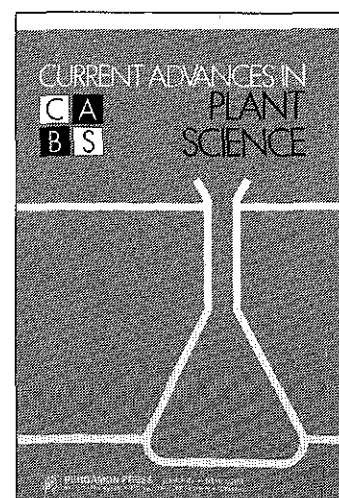
More than 1,700 biological journals covering all aspects of plant science are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 47 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

## Major Subject Areas Covered Include

Photosynthesis, Cell organisation, Cell division and cell cycle, Plant molecular biology, General metabolism, Secondary product synthesis, Nutrient relations, Translocation, Vegetative and reproductive development of seed plants, Cell, tissue and organ culture, Growth regulators, Germination and dormancy, Taxonomy, systematics and evolution, Cytogenetics, Plant breeding, Agronomy and horticulture, Tree growth and forest management, Crop protection, Plant pathology, Ecology, Pollution, acid rain, atmospheric carbon-dioxide, Plant biotechnology.

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**Subscription Information**  
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# COMPARATIVE IMMUNOLOGY, MICROBIOLOGY AND INFECTIOUS DISEASES

The International Journal For Medical and Veterinary Researchers and Practitioners

Editor-in-Chief: **CHARLES PILET**, *Ecole Nationale Vétérinaire d'Alfort, 7 Avenue de Général de Gaulle, 94704 Maisons-Alfort, Cedex, France*

The journal is international and interdisciplinary, providing a forum for physicians and veterinarians whose specialities include immunology, immunopathology, microbiology and infectious diseases in both animals and humans. *Comparative Immunology, Microbiology and Infectious Diseases* publishes both original papers and reviews of current research relative to: fundamental immunology, experimental or comparative immunology, clinical immunology, immunopathology, bacteriology, virology, mycology, etiology, pathogenesis, diagnosis, prophylaxis, treatment, epidemiology and the epizootiology of infectious diseases in man and animals.

## A Selection of Papers

Regulation of myelopoiesis, **J G BENDER et al.**  
Interaction of bovine immunoglobulins with complement, **J SELLEI.**

Heterogeneity of fibronectin reactivity among streptococci as revealed by binding of fibronectin fragments, **G S CHHATWAL & H BLOBEL.**

Vaccination of cattle with *Mycoplasma bovoculi* antigens: evidence for field immunity, **B A SALIH et al.**

Occurrence of mannose resistant hemagglutinins in *Escherichia coli* strains isolated from porcine colibacillosis, **M TRUSZCZYNSKI & J OSEK.**

Modification of muscle proteins IEF patterns in a fish *Lebistes reticulatus*, related to diet, immunization and genetic selection, **C SALOMONI et al.**

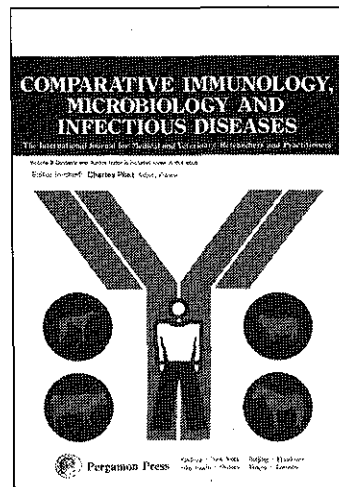
The isolation of influenza virus from chickens in Israel and studies on its antigenic relationships with other native isolates of the same antigenicity by means of monoclonal antibodies, **M LIPKIND et al.**

T and B peripheral blood lymphocytes in normal and lymphocytotic sheep, **S DJILALI & A-L PARODI.**

Incidence of abortions caused by leptospirosis in sheep and goats in Spain, **L LEON-VIZCAINO et al.**

Comparison of the DIFCO and PATOC 1 slide antigens in the screening of leptospirosis, **S W WANYANGU et al.**

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Contents, PASCAL-CNRS Database, BIOSIS Database*



**Subscription Information**  
1988: Volume 11 (4 issues)  
ISSN: 0147-9571 (A06)

# COMPUTER LANGUAGES

An International Journal

Editor: **ROBERT S LEDLEY**, *National Biomedical Research Foundation, Georgetown University Medical Center, 3900 Reservoir Road NW, Washington, DC 20007, USA*

The purpose of the journal is to publish both articles presenting original work and review articles on programming systems, structures and theories. The objective is to concentrate on programming languages and the theory of such programming languages. The topics to be included are syntax, parsing, compilers, complexities, computability, structure, semantics, automatic programming languages, special purpose languages, programming theories, programming documentation, memory management, microprogramming, process control programming, real-time programming, programming for interactive systems and the theory of algorithms, but no actual algorithms themselves. In all of these topics, the higher level aspects are emphasized.

## A Selection of Papers

G: a functional language with generic abstract data types, **P A BAILES.**

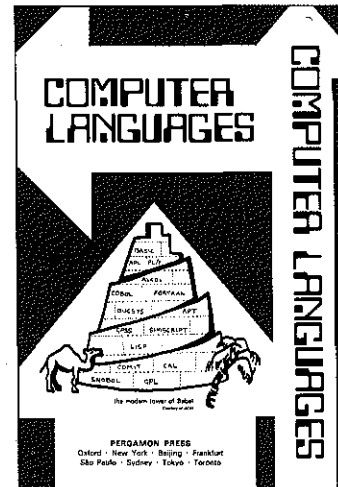
Structured program lookahead, **T W STROTHOTTE & G V CORMACK.**

Abstracting timed preemption with engines, **C T HAYNES & D P FRIEDMAN.**

A formal design of an arabic text formatter for microcomputers, **M ZAKI & AL H ALBARHAMTOSHY.**

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**Indexed/Abstracted in:** *Current Contents/Engineering, Technology & Applied Sciences, SCISEARCH Database, CompuMath Citation Index, Engng Ind Monthly & Author Index, INSPEC*



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1988: Volume 13 (4 issues)  
ISSN: 0096-0551 (350)

# DEEP-SEA RESEARCH

A Companion Journal to *Continental Shelf Research* and *Progress in Oceanography*

Deep-Sea Research is published in two parts, Part A, Oceanographic Research Papers, and Part B, Oceanographic Literature Review

## Part A, Oceanographic Research Papers

Editor-in-Chief: **JOHN D MILLIMAN**, *Department of Geology and Geophysics, Woods Hole Oceanographic Institution, Woods Hole, MA 02543, USA*

This journal is devoted to the publication of the results of original scientific research, the solution of instrumental problems, and new laboratory methods in the marine sciences. It is unique in the field of oceanography in its interdisciplinary approach covering a wide variety of subjects related to the geological, physical, mathematical, chemical and biological aspects of the ocean, the sea floor and the boundary layer between the atmosphere and the ocean. Papers that are particularly timely or topical may receive accelerated editorial response and publication as Rapid Response Papers.

### A Selection of Papers

Abyssal benthos of the Venezuela Basin, Caribbean Sea: standing stock considerations, **M D RICHARDSON** (Italy) & **D K YOUNG** (USA).

Organisms living on manganese nodules and crusts: distribution and abundance at three North Pacific sites, **L S MULLINEAUX** (USA).

Organic carbon mineralization in the Santa Catalina Basin: benthic boundary layer metabolism, **K L SMITH** Jr, (USA) *et al.* Comparison of trace metal concentrations in muscle tissue of a benthopelagic fish (*Coryphaenoides armatus*) from the Atlantic and Pacific oceans, **H WINDOM** (USA).

Anatomy of a cyclonic eddy of the Mozambique Ridge Current, **M L GRÜNDLINGH** (South Africa).

Dietary carbon sources for deep-sea organisms as inferred from their organic radiocarbon activities

**P M WILLIAMS** (USA) *et al.*

VERTEX: carbon cycling in the northeast Pacific, **J H MARTIN** (USA).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Chemical Abstracts, Current Contents, CABS, BIOSIS Database, Engng. Ind. Monthly & Author Index, INSPEC*

## Part B, Oceanographic Literature Review

Editor: **FRANK C SHEPHARD**, *Marine Biological Laboratory, Woods Hole, MA 02543, USA*

*Oceanographic Literature Review* comprises an annotated bibliography to the international research literature in all fields of oceanography including science, mathematics and methods as well as policy, laws, economics and resource management. It publishes some 7000 abstracts per annum.

References are gathered from approximately 3500 journals and other serial publications received by the Woods Hole Oceanographic Institution and Marine Biological Laboratory Libraries. Many of these journals are covered by no other oceanographic database. *OLR* is unique in citing non-oceanographic material in the basic sciences thought to be useful to oceanographers.

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OCEANOGRAPHIC RESEARCH PAPERS	
<small>Volume Contents and Author Index for Vol. 35, 1988, are included free in this issue.</small>	
Editor:	<b>JOHN D. MILLIMAN</b>
Executive Editor:	<b>MARK SWANLOW</b>
Volume 35, No. 3A	JANUARY 1987
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**Oceanographic Literature Review** is also available to subscribers of *Continental Shelf Research*

## COMPUTERS & CHEMICAL ENGINEERING

An International Journal

Co-Editors: **G V REKLAITIS**, School of Chemical Engineering, Purdue University, West Lafayette, IN 47907, USA and **D W T RIPPIN**, Swiss Federal Institute of Technology, ETH-Zentrum, 8092 Zurich, Switzerland

*Computers & Chemical Engineering* is primarily a journal of record for new developments in the application of computing and systems technology to chemical engineering problems. Several major areas of chemical engineering study are represented in the journal, including: Process synthesis, analysis and design • Dynamic analysis and control of chemical processes • Design methods for chemical engineering equipment, including chemical reactors, distillation columns, extractors, etc • Applications of computing and numerical analysis in chemical engineering science • Process operations (eg. integrated manufacturing systems, reliability, safety, scheduling)

Articles published cover different aspects of the application of computing to one or more of these various areas, including new applications of established methods, comparisons of alternative methodologies, descriptions of state-of-the-art industrial applications and significant computing developments targeted at training/education.

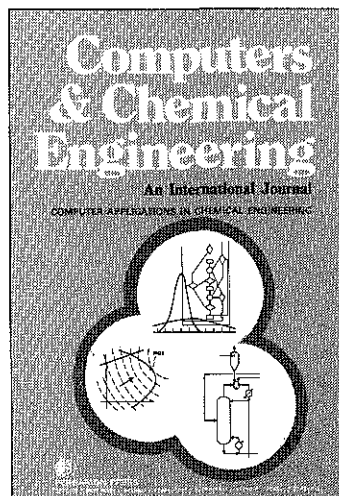
*Computers & Chemical Engineering* publishes full-length articles, survey papers, journal reviews, short notes and Letters to the Editor.

### A Selection of Papers

Review of information management in computer-aided engineering, **M BENAYOUNE** (UK) & **P E PREECE** (UK). Homotopy continuation methods for computer-aided process design, **T L WAYBURN** (USA) & **J D SEADER** (USA). Control, data acquisition and analysis of catalytic gas-liquid mini slurry reactors using a personal computer, **N A MOHAMMADI** (Canada) & **G L REMPEL** (Canada). An extended Marquardt-type procedure for fitting error-in-variables models, **P VALKO** (Hungary) & **S VAJDA** (Hungary). SIMBAD: a process simulator linked to a DBMS - I. The executive system, **J MONTAGNA** (Argentina) *et al.* Avoiding variable-scaling problems using the Gibbs-Helmholtz equation, **S VENKATARAMAN** (USA) & **A LUCIA** (USA).

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**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Computer Contents, Engng Ind Monthly & Author Index, INSPEC, Computer & Control Abstracts*



**Subscription Information**  
1988: Volume 12 (12 issues)  
ISSN: 0098-1354 (349)

## COMPUTERS & CHEMISTRY

An International Journal

Editor: **DELOS F DE TAR**, Department of Chemistry, Florida State University, Tallahassee, Florida 32306-3006, USA

*Computers & Chemistry* is an international journal which publishes refereed papers on applications of computer techniques to chemistry and biochemistry.

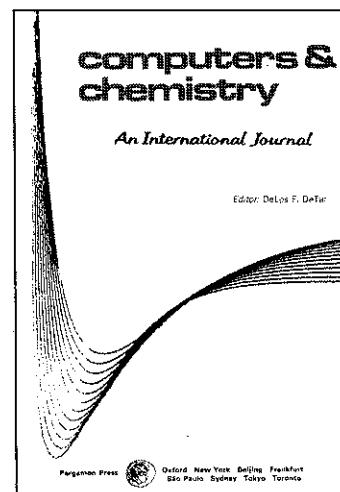
Articles discuss both the development of original algorithms (software) and the development of original techniques of interfacing (hardware). Also featured are reviews evaluating the relative merits of existing software or hardware and brief comments on a topic of significance about the performance of hardware or software in a given application.

The purpose of *Computers & Chemistry* is to present reliable accounts of computer techniques for those engaged in research in all aspects of chemistry.

### A Selection of Papers

An algorithm to determine the electrical double-layer parameters for the simultaneous adsorption of two anions at the mercury electrode-solution interface, **R C ROCHA-FILHO** (Brazil). Signal averaging computer system for Perkin-Elmer 577 infrared spectrophotometer, **L S CORNISH** (Hong Kong) *et al.* MOLTW: a program for conformational studies using potential functions - II. Algorithms for molecular coordinates and topology manipulation, **T RYHÄNEN** (Finland) *et al.* MPEC2: a code for multi-phase chemical equilibria, **M UCHIDA** (Japan). A microcomputer-based data acquisition and analysis system. Application to EPR, **M CARLIÈR** (France) *et al.* Computer generation of generalized Wheland polynomials, **K J KOPECKY** (USA) & **M RANDIC** (USA). Program system SIDYS: simulation and parameter identification of dynamic systems, **J BENZ** (FRG) *et al.* Automatic deductive systems - I. Chemical reaction models, **P A D DE MAINE** (USA) & **M M DE MAINE** (USA). A matrix method for partitioning the atoms of a molecule into equivalence classes, **M BERSOHN** (Canada). Computer-aided chemistry - II. A spectral database management program for use with microcomputers, **W R BROWETT** (Canada) & **M J STILLMAN** (Canada).

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## DRUG INFORMATION JOURNAL

The Official Publication of the Drug Information Association

Editor: **THOMAS W TEAL**, PO Box 113, Maple Glen, PA 19002, USA

*Drug Information Journal* is the official publication of the Drug Information Association. As the official organ of the Association, the journal's purposes are: (1) To disseminate information on manual and automated drug information systems. (2) To foster communication between educational research, industrial and governmental personnel engaged in drug information activities. (3) To provide a forum for the development of improved methods of presenting research data generated from chemical, toxicological, pharmacological and clinical studies.

### A Selection of Papers

Computer-aided drug design in the year 2000, **S UNGER**.

Sources of spontaneous adverse drug reaction reports received by pharmaceutical manufacturers, **G FAICH et al.**

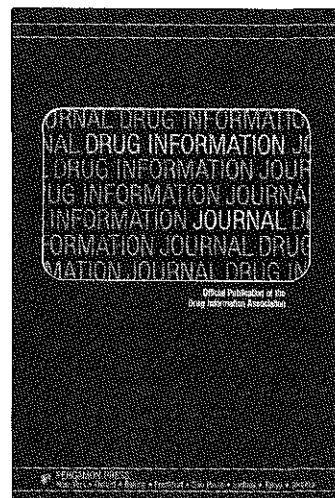
FDA's conduct, review, and evaluation of inspections of clinical investigators, **G TURNER et al.**

Management of pharmacokinetic data using HP-3357/mainframe IBM interfacing, **R FARMEN et al.**

Evaluating liver enzyme abnormalities in clinical trials involving diabetic patients, **M WEINTRAUB & G GINSBERG**.

A Software Survey section is included in this journal.

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# COMPUTERS & FLUIDS

An International Journal

Chief Editor: **STANLEY G RUBIN**, *Department of Aerospace Engineering and Engineering Mechanics, University of Cincinnati, OH 45221, USA*

Co-Editor: **MARTIN H BLOOM**, *Polytechnic Institute of New York, Route 110, Farmingdale, NY 11735, USA*

This journal is multidisciplinary and interprets the term 'fluid' in a broad sense. Hydrodynamics, high-speed gas dynamics, turbulence, multiphase flow, rheology, kinetic theory and flows coupled to chemical reactions, radiation and electromagnetics are all of interest - provided that computer technique plays a significant part in the associated studies or design methodology. Applications are found in all branches of engineering and science: mechanical, civil, chemical, aeronautical, electrophysical, medical, geophysical, vehicular and oceanographic. The development of numerical methods relevant to fluid flow computations and novel applications to flow systems are also of interest.

## A Selection of Papers

A catalogue of the extra boundary conditions for the difference schemes approximating the hyperbolic equations,

**YU I SHOKIN** (USSR) & **L A KOMPANIETS** (USSR).

Vorticity-velocity formulation for high Re flows,

**P ORLANDI** (Italy).

Turbulence models and their applications to the prediction of internal flows: a review, **M NALLASAMY** (USA).

Global relaxation procedure for compressible solutions of the steady-state Euler equations, **P K KHOSLA** (USA) & **H T LAI** (USA).

The effect of a stagnant surfactant cap on the transport mechanisms of a condensing droplet in a high Reynolds number flow, **TAE-HO CHANG** (USA) & **J N CHUNG** (USA).

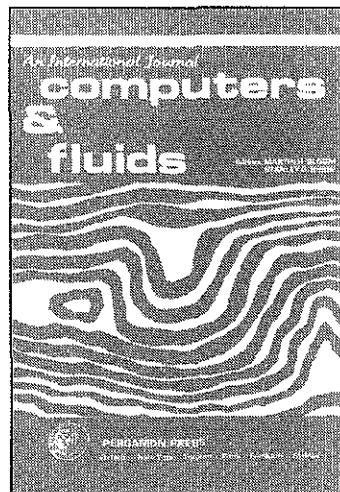
On shock localization by digital image processing techniques, **E V VOROZHTSOV** (USSR).

Three-dimensional calculation of turbulent duct flow with non-uniform inlet conditions, **A O DEMUREN** (FRG) & **W RODI** (FRG).

A Software Survey section is included in this journal.

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**Subscription Information**  
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ISSN: 0045-7930 (365)

# COMPUTERS & GEOSCIENCES

Incorporating *COGS Computer Contributions*

An International Journal

Published in association with the International Association for Mathematical Geology

Editor-in-Chief: **DANIEL F MERRIAM**, *Wichita State University, Wichita, KS 67208, USA*

Associate Editor (COGS): **DOUGLAS PETERS**

*Computers & Geosciences* serves as a public medium for the exchange of ideas between the geological and computer sciences. *Computers & Geosciences* brings to its readers computer programs, algorithms, computer-aided instructional material, programming guides and applications, together with other topics of interest to geoscientists working with computers. The term geoscience is used in its broadest sense, encompassing geology, geophysics, geochemistry, oceanography, hydrology, and geography. Papers are concerned with the computational aspects of all subjects ranging from file maintenance and data processing to the latest problem-solving techniques. The publication serves workers in academia, industry and government. Students, teachers, researchers and practitioners will all benefit from ideas in the journal.

From 1988, the journal will incorporate *COGS Computer Contributions* as a distinctive section within the journal. This will bring to the journal papers on microcomputer applications and the use of other computer techniques in geosciences.

In addition to the longer papers containing programs, the editors welcome the submission of articles on algorithms, or discussion of techniques, short notes with timely material and book reviews of pertinent publications. Papers on comparative results and computer graphics are especially encouraged.

## A Selection of Papers

CONISS: a FORTRAN 77 program for stratigraphically constrained cluster analysis by the method of incremental sum of squares, **E C GRIMM** (USA).

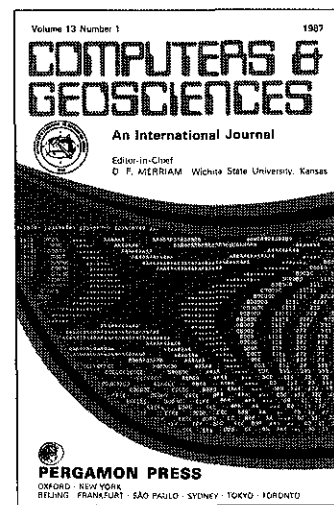
IMAGE: a FORTRAN V program for image analysis of particles, **J STARKEY** (Canada) & **S SIMIGIAN** (Canada).

CONTUR: a FORTRAN algorithm for two-dimensional high-quality contouring, **S R YATES** (USA).

PXC: an APL program for calculating pyroxene structural formulae and end members, **J G McHONE** (USA).

Language standards and program presentation, **A D LAW** (UK).

**Indexed/Abstracted in:** *Chemical Abstracts, Current Contents, Computer Contents, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 14 (6 issues)  
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# ECOTASS

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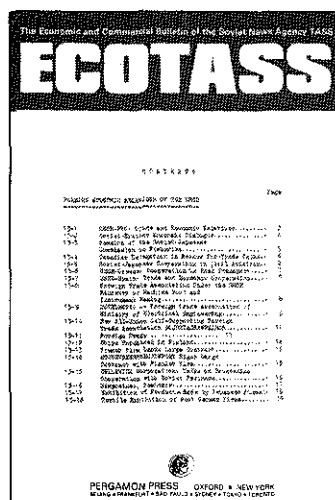
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**Subscription Information**  
 1988: (52 issues)  
 English Edition,  
 ISSN: 0733-5989 (432)  
 French Edition,  
 ISSN: 0733-5970 (431)  
 German Edition,  
 ISSN: 0733-5997 (433)  
 Italian Edition,  
 ISSN: 0736-8429 (717)



# ELECTRIC TECHNOLOGY USSR

Selected papers from *Elektrichestvo*

Translation Editor: O M BLUNN, Edgbaston, Birmingham, UK

*Elektrichestvo* is well established as a major USSR research journal covering heavy and light current engineering and energetics. Papers from this journal, selected for their contribution to the work of electrical engineers in English-speaking countries, are translated and published in *Electric Technology USSR*. They include such areas as the use of computing techniques, the control of heavy current by light current techniques and the application of automation to process control.

## A Selection of Papers

Power system information theory problems, V A VENIKOV & V K SOKOLOV.

Detection of generator out-of-step conditions from the impedance measured at its terminals, B Z GAMM & V F TONYASHEV.

The scientific principles of induction motor diagnostics and quality control, O D GOLDBERG.

Control of series-parallel groups of thyristors for switchgear, V P ANAN'EV & V YA FROLOV.

The present state and problems in electric machine design for heat and power engineering, I A GLEBOV.

The magnetized ferromagnetic apparatus with parts of the magnetic system fully saturated, A M BRYANTSEV.

A measuring package for monitoring and control of power consumption, V A BOGDANOV & D G GORELIK.

The electric strength of air spacings between EHV distribution gear conductors, G A SHCHERBAKOVA *et al.*

Detection of latent thermal defects in turbo-generator active parts, N S VOITEKO (USSR) *et al.*

Improving the stabilizing properties of automatic voltage regulation in complex power systems, G A TUL'CHINSKAYA.

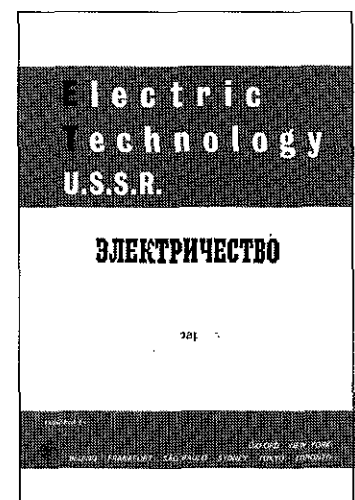
A high-speed switch for impulsive voltage and current generator facilities, T G AKHMATOVA *et al.*

The tests for integrated microcircuit relay protection and automatic apparatus, S F ZHUKOV.

On guaranteed electric safety, V Ye MANOILOV.

Indexed/Abstracted in: INSPEC

**Subscription Information**  
 1987: (4 issues)  
 ISSN: 0013-4155 (243)



# COMPUTERS & MATHEMATICS WITH APPLICATIONS

An International Journal

Editor: **ERVIN Y RODIN**, *Department of Systems Science and Mathematics, Box 1040, Washington University, St Louis, MO 63130, USA*

*Computers and Mathematics with Applications* provides a medium of exchange for those engaged in fields where there exists a non-trivial interplay between mathematics and computers. Thus, the three present principal areas of interest of the journal are:

1. Computers in mathematical research (e.g. numerical analysis, number theory, probability theory).
2. Mathematical models of computer systems.
3. Interactive applications - essentially the utilization of a (non-trivial) combination of classical mathematics and of computer science in the solution of problems arising in other fields.

The journal will pay particular attention to applications in "non-classified" fields, such as environmental science, ecology, biology, urban systems and also to appropriate papers in applied mathematics.

## A Selection of Papers

Fast parallel algorithms for polynomial division over an arbitrary field of constants, **D BINI** (Italy) & **V PAN** (USA).

Finite-difference methods for boundary-value problems of differential equations with deviating arguments,

**R P AGARWAL** (Singapore) & **Y M CHOW** (Singapore).

A simple technique for adding tension to parabolic blending interpolation, **W SCHNEIDER** (FRG).

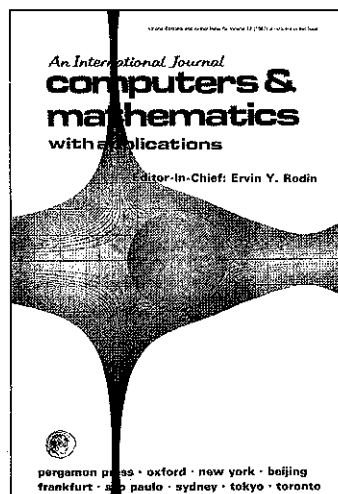
An iterative algorithm for the solution of a tridiagonal linear system of equations, **W S YOUSIF** (UK) & **D J EVANS** (UK).

Application of numerical methods to the acceleration of the convergence of the adaptive control algorithms. The one-dimensional case, **J J MINAMBRES** (Spain) & **M DE LA SEN** (Spain).

A Software Survey section is included in this journal.

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents, Computer Contents, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



## Subscription Information

1988: Volumes 15 & 16

(24 issues)

ISSN: 0895-7177 (301)

# COMPUTERS & OPERATIONS RESEARCH

and Their Application to Problems of World Concern

An International Journal

Editor: **SAMUEL J RAFF**, *8312 Snug Hill Lane, Potomac, MD 20854, USA*

Operations research and computers meet in a large number of scientific fields including ecology, transportation, safety, reliability, urban planning, economics, inventory control, investment strategy, and military analysis.

The common element in all the scientific areas which this journal addresses is the methodology for determining viable solutions to problems using computers and the techniques of operations research. However, it is not only the mathematical methodology which is of interest. The applications are of equal importance and the two are mutually supportive since understanding the application helps one greatly to comprehend the mathematical methods used and vice versa.

The form, content and language of each article ensures its maximum utility to all researchers, teachers and practitioners interested in operations research, computers and their applications.

## A Selection of Papers

A single period inventory problem with partially controllable demand, **Y GERCHAK** (Canada) & **M PARLAR** (Canada).

Conditional covering: greedy heuristics and computational results, **S S CHAUDHRY** (USA) *et al.*

Poisson input queueing system with startup time and under control-operating policy, **A BORTHAKUR** (India) *et al.*

Generating improved dominance conditions for the flowshop problem, **J N D GUPTA** (USA) *et al.*

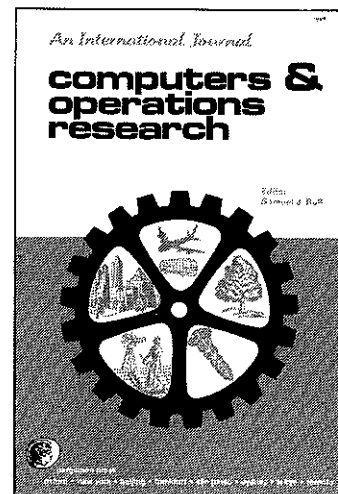
One-dimensional simplex search, **ENG CHOO** (Canada) & **CHAIHO KIM** (USA).

Reduction in problem size for ranking alternatives in group decision-making, **H J WEISS** (USA) & **J Y ASSOUS** (USA).

Single server stochastic recirculation systems, **D SONDERMAN** (USA) & **B POURBABAI** (USA).

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents, Management Contents, Computer Contents, BIOSIS Database, Engng Ind Monthly & Author Index, Legal Contents, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volume 15 (6 issues)

ISSN: 0305-0548 (300)

# ELECTRONIC PUBLISHING ABSTRACTS

A tailor-made information service designed to bring you news of the most modern and up-to-date technology

Developed by PIRA, The Research Association for the Paper and Board, Printing and Packaging Industries and the International Electronic Publishing Research Centre (IEPRC)

Editor: **A AITKEN**, *Database Group - PIRA, Randalls Road, Leatherhead, Surrey KT22 7RU, UK*

The monthly *Electronic Publishing Abstracts* provides a unique service tailored to the needs of publishing and allied trades by drawing together, in one resource, summaries of the scientific and technical literature on information technology and electronic publishing. In particular it covers the input, transmission, storage and retrieval of text as an alternative to the publication of printed material. This data is vital to the businesses of all those in the information industry, including: publishers; printers; typesetters; database owners and hosts; broadcasting and telecommunications corporations; software houses; computer and office systems companies.

*Electronic Publishing Abstracts* is also available online via Pergamon ORBIT InfoLine.

Subscribers also receive a **free subscription** to the *Publishing and New Media Technology Newsletter* published every other week. The *Newsletter* provides brief items of interest to the information technology community.

## Contents

**GENERAL.** Technological and economic trends. Social factors. Copyright and data protection.

**INPUT.** Word processing. Speech recognition and synthesis. Pattern recognition and OCR.

**COMMUNICATIONS.** Satellite communications. Networks. Facsimile transmission. Electronic office. Interfacing, protocols and standards. Electronic mail. Cable TV. Transmission through materials.

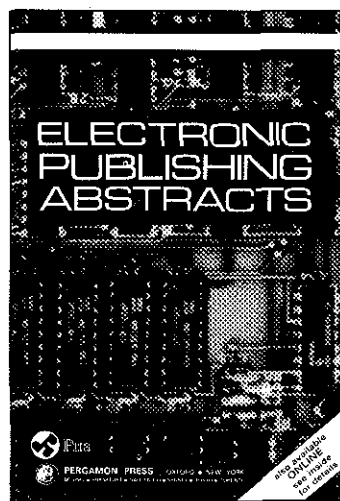
**STORAGE.** Magnetic storage media. Optical and holographic storage media. Memory.

**RETRIEVAL SYSTEMS:** Databases and databanks. Electronic publications. Videotex and teletext. Document delivery. Artificial intelligence.

**OUTPUT.** Hardcopy output devices. Visual display units. Image processing, computer graphics and CAD. Terminals and workstations. Display characteristics.

## Subscription Information

1988: Volume 6 (12 issues)  
including *Publishing and  
New Media Technology*  
ISSN: 0739-2907 (724)  
*Electronic Publishing  
Abstracts* - available online  
via Pergamon ORBIT  
InfoLine.



# ENDEAVOUR

A Review of the Progress of Science and Technology in the Service of Mankind

Editor: **TREVOR I WILLIAMS**, *Pergamon Press, Headington Hill Hall, Oxford OX3 0BW, UK*

*Endeavour* was founded by Imperial Chemical Industries (ICI) in 1942 and was published by them until the end of 1976 when responsibility for its future publication was entrusted to Pergamon Press. It continues to record the progress of science and technology in the service of mankind, in terms understandable not only by the practising scientist and engineer but for the interested general reader.

The guiding principles in the choice of articles to be published are the intrinsic interest of the subject, its importance, and the authority of the writer.

While most articles are specially commissioned, the Editor will always be glad to consider contributions conforming to these criteria.

## A Selection of Papers

The Kuroshio, **J SU** (China) & **Y X PU** (China).

A survey of underwater welding techniques, **J NIXON** (UK) & **J BILLINGHAM** (UK).

H-II rocket: new Japanese launch vehicle in the 1980s, **T GODAI** (Japan).

The European very large telescope (VLT) project, **D ENARD** (FRG).

Carbon fibre comes of age, **L N PHILLIPS** (UK).

The prediction of drought: a meteorological perspective, **E M RASMUSSEN** (USA).

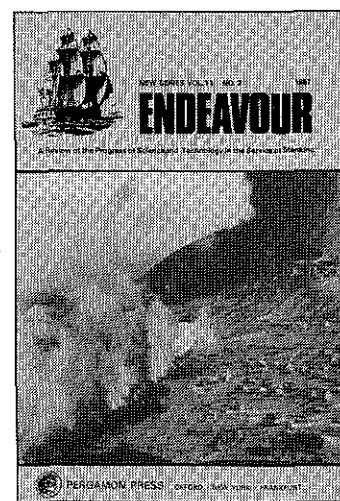
Pharmacology of survival: insect selective neurotoxins derived from scorpion venom, **E ZLOTKIN** (Israel).

The St Lucia project and control of schistosomiasis, **G WEBBE** (UK).

**Indexed/Abstracted in:** *Chemical Abstracts, Current Awareness in Biological Sciences (CABS)*

## Subscription Information

1988: Volume 12 (4 issues)  
ISSN: 0160-9327 (574)



## COMPUTERS IN HUMAN BEHAVIOR

Editor: **ROBERT D TENNYSON**, *Department of Educational Psychology, 178 Pillsbury Drive S.E., University of Minnesota, Minneapolis, MN 55455, USA*

*Computers in Human Behavior* is a scholarly journal dedicated to examining the use of computers from a psychological perspective. Original theoretical works, research reports, literature reviews, software reviews, book reviews and announcements are published. The journal addresses the use of computers in psychology, psychiatry and related disciplines as well as the psychological impact of computer use on individuals, groups and society. The former category includes articles exploring the use of computers for professional practice, training, research and theory development. The latter category includes articles dealing with the psychological effects of computers on phenomena such as human development, learning, cognition, personality and social interactions.

The journal addresses human interactions with computers, not computers *per se*. The computer is discussed only as a medium through which human behaviors are shaped and expressed. The primary message of most articles involves information about human behavior. Therefore, professionals with an interest in the psychological aspects of computer use, but with limited knowledge of computers, will find this journal of interest.

### A Selection of Papers

The information processing explanation of Gestalt phenomena, **H A SIMON** (USA).

Computers in personality assessment: a brief past, an ebullient present, and an expanding future, **Y S BEN-PORATH** (USA) & **J BUTCHER** (USA).

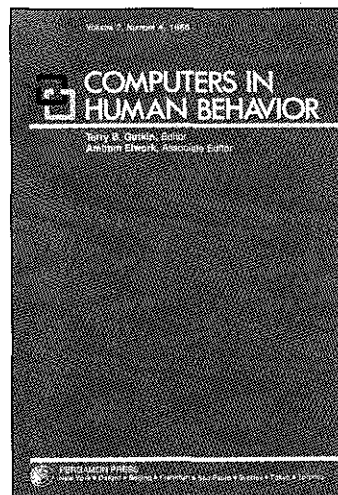
Using computers to construct, evaluate, and apply actuarial systems of classification: a methodology and example, **R L HALL** (USA) & **S S GLASSMAN** (USA).

The use of computer-assisted instruction in support of psychotherapeutic processes, **J P SAMPSON, Jr** (USA).

Expectancy theory as a predictor of individual response to computer technology, **D D GALLO** (USA).

Using computers for the treatment of psychological problems **G H LAWRENCE** (USA).

**Indexed/Abstracted in:** *Internat'l Bibl Period Lit, Internat'l Bibl Book Reviews, ERIC Clearinghouse, Ergonomics Abstr, Software Reviews on File, Computer Publishers & Publications, PsycINFO, Psychological Abstracts, Current Contents, Social Science Citation Index, Engineering Index Annual, COMPENDEX, Ei Engineering Meetings*



**Subscription Information**  
1988: Volume 4 (4 issues)  
ISSN: 0747-5632 (759)

## CONTINENTAL SHELF RESEARCH

A Companion Journal to *Deep-Sea Research* and *Progress in Oceanography*

Editors: **MICHAEL COLLINS**, *Department of Oceanography, The University, Southampton, SO9 5NH, UK* and **RICHARD W STERNBERG**, *School of Oceanography, WB-10, University of Washington, Seattle, WA 98195, USA*

*Continental Shelf Research* concentrates on articles dealing with the results of original research in physical oceanography, chemistry, ecology, sedimentology etc., together with contributions on more applied aspects of continental shelf research. Emphasis is placed on interdisciplinary process-oriented contributions, and encouragement is given to the publication of the results of innovative experimental studies with more general applicability.

*Continental Shelf Research* includes occasional Review Articles as well as incorporating a section on Notes, Instrumentation and Methods. Furthermore, papers are open for written discussion for up to three months following publication and both the discussion and the author's response are published.

### A Selection of Papers

Cetacean biomass densities near submarine canyons compared to adjacent shelf/slope areas, **R D KENNEY** (USA) & **H E WINN** (USA).

Factors influencing the standing crop of phytoplankton on the Australian Northwest Shelf seaward of the 40 m isobath, **D J TRANTER** (Australia) & **G S LEECH** (Australia).

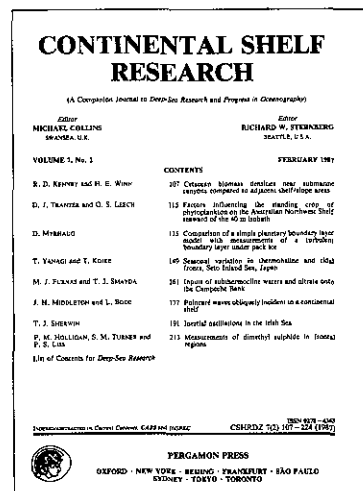
Comparison of a simple planetary boundary layer model with measurements of a turbulent boundary layer under pack ice, **D MYRHAUG** (Norway).

Seasonal variation in thermohaline and tidal fronts, Seto Inland Sea, Japan, **T YANAGI** (Japan) & **T KOIKE** (Japan).

Summer distribution of dissolved Al, Cd, Co, Cu, Mn and Ni in surface waters around the British Isles, **K KREMLING** (FRG) & **D HYDES** (UK).

Middle Atlantic bight meridional wind component effect on bottom water temperatures and spawning distribution of Atlantic croaker, **B L NORCROSS** (USA) & **H R AUSTIN** (USA).

**Indexed/Abstracted in:** *Chemical Abstracts, Current Contents, CABS, INSPEC*



# ENGINEERING FRACTURE MECHANICS

An International Journal

Editor-in-Chief: **HAROLD LIEBOWITZ**, *School of Engineering and Applied Science, The George Washington University, Washington, DC 20052, USA*

*Engineering Fracture Mechanics* publishes technical papers on research and advanced applications of fracture mechanics, including contributions in the areas of mechanics and materials science as related to fracture mechanics.

Topics regularly covered include: analysis of crack patterns, crack stress field analysis, experimental stress analysis methods, evaluations of materials, uses of fracture mechanics in studies of fatigue fracturing and stress corrosion cracking. Several pages of appropriate issues are devoted to a compendium of information, including a synthesis and utilization of significant research results. This information takes the form of reviews of books and papers published elsewhere, compilations of solutions (formulae) and other analytical results, and tables and curves of data and information from various sources. It provides a valuable data and reference source for the field.

## A Selection of Papers

All modes fracture toughness of two aluminium alloys, **N TSANGARAKIS** (USA).

J-integral functions of a compact tension specimen for fracture and fatigue analysis, **B K NEALE** (UK) & **E K PRIDDLE** (UK).

J-integral estimates for cracks in infinite bodies, **N E DOWLING** (USA).

Local crack-tip strain approach to fatigue crack propagation, **Y FURUYA** (Japan) & **H SHIMADA** (Japan).

A composite crack profile model for CTOD determination - I. A theoretical analysis, **C R PRATAP** (India) & **R K PANDEY** (India).

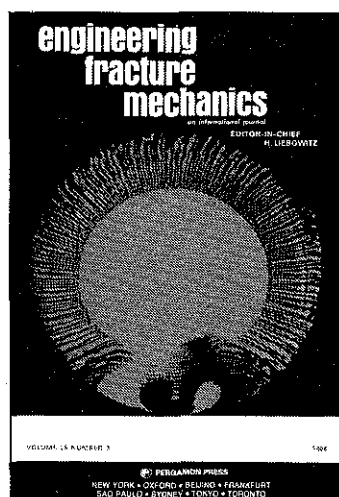
A new method for measuring the shape and size of the plastic zones around slit ends - the direct showing method, **L YUNLIN** (China).

Viscoplastic finite element analysis of rapid fracture, **R HOFF** (Canada) *et al.*

A Software Survey section is included in this journal.

This journal contains a *Cauzin Softstrip*<sup>®</sup>, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volumes 29-31  
(18 issues)  
ISSN: 0013-7944 (322)

# ENGLISH FOR SPECIFIC PURPOSES

An International Journal (Formerly *The ESP Journal*)

Co-Editors: **ANN M JOHNS**, *Department of Academic Skills, San Diego State University, San Diego, CA 92182, USA* and **JOHN SWALES**, *Acting Director, English Language Institute, University of Michigan, Ann Arbor, MI 48109, USA*

*English for Specific Purposes* publishes articles and research notes reporting basic research in the linguistic description of specialized varieties of English and the application of such research to specific methodological concerns. Topics such as the following may be treated from the perspective of *English for Specific Purposes*: discourse analysis, second language acquisition in specialized contexts, needs assessment, curriculum development and evaluation, materials preparation, teaching and testing techniques, the effectiveness of various approaches to language learning and language teaching, and the training or retraining of teachers for the teaching of ESP.

In addition, the journal welcomes articles and discussions that identify the aspects of ESP needing development, the areas into which the practice of ESP may be expanded, the possible means of cooperation between ESP programs and the learners' professional or vocational interests, and the implications that findings from related disciplines can have for the profession of ESP. The journal also carries reviews of textbook materials and scholarly books on topics of general interest to the profession.

## A Selection of Papers

Towards an appropriate technology model of communicative course design: issues and definitions, **N MARKEE**.

Essay examination prompts and the teaching of academic writing, **D HOROWITZ**.

An investigation of stylistic errors of Arab students learning English for academic purposes, **M H DOUSHAQ**.

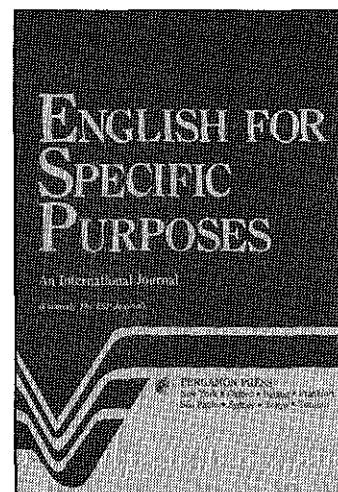
American-English business negotiations: training for non-native speakers, **J NEU**.

Features of word omission and abbreviation in telexes, **H ZAK & T DUDLEY-EVANS**.

An experiment in minimal teacher-training in ESP, **G CORTESE**.  
Formative evaluation as an indicator of student wants and attitudes, **C KENNEDY**.

From "hard-core" to "soft-core" ESP: a case study, **G LA TORRE & A KAULEN**.

Beyond the classroom: monitoring industry, **A FRANCO**.



## Subscription Information

1988: Volume 7 (3 issues)  
ISSN: 0889-4906 (682)

New for 1988

## CURRENT ADVANCES IN BIOCHEMISTRY

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Biochemistry* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, which has been designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 26,500 biochemistry titles annually, *Current Advances in Biochemistry* enables pure and applied biochemists to keep abreast of the ever-increasing literature being published in their subject area.

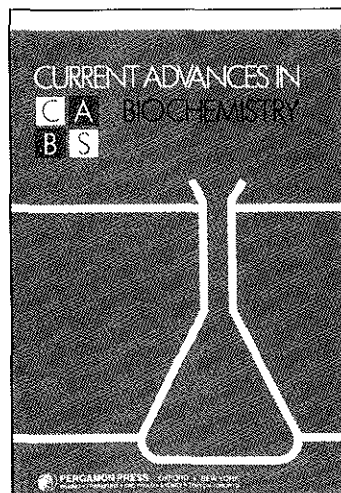
More than 1,900 biological journals covering all aspects of biochemistry are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 83 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

### Major Subject Areas Covered Include

Techniques, Nucleic acids, Protein synthesis, Membrane proteins, Haem proteins, Non-haem blood proteins, Structural proteins, Contractile proteins, Binding proteins, Lipoproteins, Carbohydrates, Hydrocarbons, Lipids, Metabolic pathways, Metabolic control, Bioenergetics, Enzymes, Vitamins and coenzymes, Elements and radicals, Comparative biochemistry, General topics and reviews.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
1988: Volume 5 (12 issues)  
ISSN: 0741-1618 (732)

## CURRENT ADVANCES IN CANCER RESEARCH

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Cancer Research* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database* designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and above all, easy to use. By retrieving more than 23,000 titles annually, *Current Advances in Cancer Research* enables scientists to keep abreast of the ever-increasing literature being published in their area.

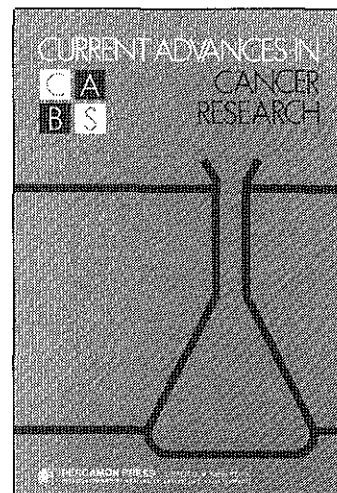
More than 2,300 biological journals covering all aspects of cancer research, from experimental research to clinical observation, are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 37 major headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

### Major Subject Areas Covered Include:

Cancer incidence, control and prevention, Experimental investigations: carcinogenesis, biochemistry, biophysics, immunology, endocrinology, Clinical investigations - diagnosis, Clinical investigations - treatment: chemotherapy, radiotherapy, transplantation, surgery, Clinical investigations by organ site: buccal cavity and pharynx, digestive organs, respiratory system, skin, breast, urinary organs, haematologic malignancies, Animals and Plants: comparative tumour biology, plant tumours.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
1988: Volume 1 (12 issues)  
ISSN: 0895-9803 (846)

# ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY

The Official Journal of The Society of Environmental Toxicology and Chemistry (SETAC)

Editor-in-Chief: **HERBERT WARD**, Department of Environmental Science and Engineering, Rice University, Houston, TX 77251, USA

*Environmental Toxicology and Chemistry*, the official journal of the Society of Environmental Toxicology and Chemistry, is dedicated to furthering scientific knowledge and disseminating information on environmental toxicology and chemistry, including the application of these sciences to hazard assessment. The journal provides a forum for professionals in education, industry, government and other segments of society involved in the use, protection and management of the environment and the welfare of the general public.

*Environmental Toxicology and Chemistry* is divided into three sections, each with its own editor: Environmental Chemistry, Environmental Toxicology and Hazard Assessment. Interdisciplinary in scope, the journal includes integrative studies involving components of classical toxicology, physiology, biology, microbiology, organic, environmental and analytical chemistry, anatomy, genetics, ecology, soil, water, atmospheric sciences and economics.

## A Selection of Papers

Fate and movement of azaarenes and their anaerobic biotransformation products in an aquifer contaminated by wood-treatment chemicals, **W E PEREIRA** (USA) *et al.*

Avoidance responses of schooling fathead minnows (*Pimephales promelas*) to a blend of metals during a 9-month exposure, **S I HARTWELL** (USA) *et al.*

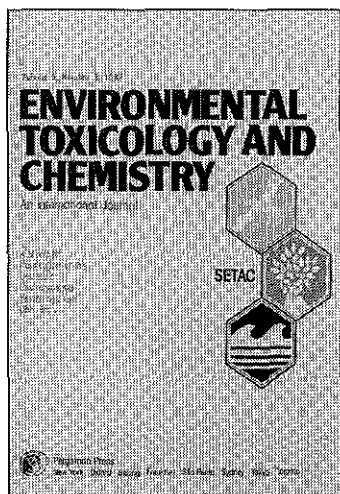
Field validation of avoidance of elevated metals by fathead minnows (*Pimephales promelas*) following *in situ* acclimation, **S I HARTWELL** (USA) *et al.*

Chronic effects of di-2-ethylhexyl phthalate on biochemical composition, survival and reproduction of *Daphnia magna*, **C O KNOWLES** (USA) *et al.*

Exposure of forestry ground workers to 2,4-D, picloram and dichlorprop, **T L LAVY** (USA) *et al.*

Biodegradation data evaluation for structure/biodegradability relations, **P H HOWARD** (USA) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS Database, Science Citation Index, Current Awareness in Biological Sciences (CABS), ISI/Geosci Tech*



**Subscription Information**  
1988: Volume 7 (12 issues)  
ISSN: 0730-7268 (686)

# EUROPEAN JOURNAL OF CANCER & CLINICAL ONCOLOGY

Official Journal for the European Organization for Research on Treatment of Cancer (EORTC) and the European Association for Cancer Research (EACR)

Editor: **H J TAGNON**, Institut Jules Bordet, 1 Rue Héger-Bordet, 1000 Bruxelles, Belgium

This journal was founded in 1964 primarily to encourage collaboration among scientists and among clinical investigators in the broad field of cancer research. Such collaboration has already found its expression in the creation of several European work groups such as the European Organization for Research on Treatment of Cancer and the European Association for Cancer Research, with many cooperative subgroups (mammary cancer, lung cancer, choriocarcinoma, prostatic cancer, children's tumours, head and neck cancer, clinical radiobiology, etc). The journal now provides a forum for the exchange of ideas and information among workers belonging to all scientific disciplines concerned with cancer.

A new section entitled 'EJCCO Service' now appears in every issue. Under this title the journal will publish all pertinent information on cancer research grants, research clinical positions open and scientific meetings. This information will appear within eight weeks of its reception in the Editorial office.

## A Selection of Papers

The therapeutic use of peritoneal macrophages in infected leukemic patients, **O FAKHRI** (Iraq) & **H AL-MONDHIRY** (Iraq).

Heterogeneity of soluble and nuclear oestrogen receptor status of involved nodes in relation to primary breast cancer, **L CASTAGNETTA** (Italy) *et al.*

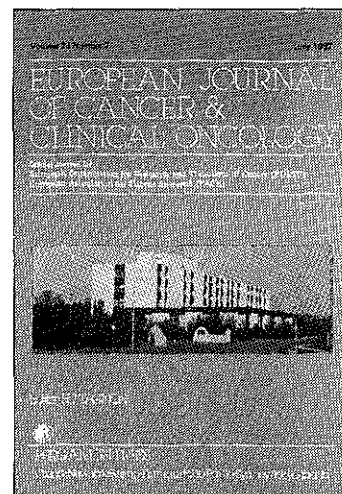
A randomized study of methotrexate, bleomycin, hydroxyurea with versus without cisplatin in patients with previously untreated and recurrent squamous cell carcinoma of the head and neck, **R ABLE** (Switzerland) *et al.*

Expression of FMC7 antigen and tartrate-resistant acid phosphatase isoenzyme in cases of B-lymphoproliferative diseases, **H G DREXLER** (FRG) *et al.*

Altered growth control by natural growth inhibitors in the mutant HD33 substrain of the Ehrlich-Létré ascites mammary carcinoma, **W LEHMANN** (GDR) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 24 (12 issues)  
ISSN: 0277-5379 (298)

# CURRENT ADVANCES IN ECOLOGICAL SCIENCES

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Ecological Sciences* is a publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 21,500 ecology titles annually, *Current Advances in Ecological Sciences* enables pure and applied ecologists to keep abreast of the ever-increasing literature being published in their subject area.

More than 1,700 biological journals covering all aspects of ecological sciences are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 58 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

## Major Subject Areas Covered Include

Ecosystem dynamics, Historical ecology, Community ecology, Animal behaviour, Productivity and growth rates, Primary production processes, Interactions: predator/prey, host/parasite, plant/animal, Water relations, Phenology and rhythms, Adaptation (physiological, biochemical, morphological), Genecology, Micrometeorology, Hydrology, Litter and humus, Statistics, modelling and sampling, Fish farming and aquaculture, Pollution, Ecology: tropical, arid zone, forest, shrubland, grassland, tundra, wetland, freshwater, marine, coastal and estuarine, microbial and crop.

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# CURRENT ADVANCES IN GENETICS & MOLECULAR BIOLOGY

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Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Genetics & Molecular Biology* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 23,000 titles annually, *Current Advances in Genetics & Molecular Biology* enables pure and applied research scientists to keep abreast of the ever-increasing literature being published in their subject area.

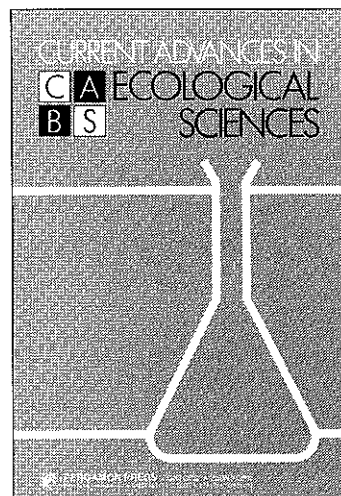
More than 2,100 biological journals covering all aspects of genetics and molecular biology are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 78 subject headings with full cross-referencing.

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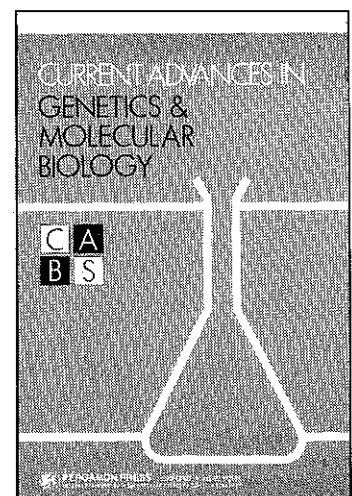
## Major Subject Areas Covered Include

DNA/RNA sequences and genome organisation, DNA replication, synthesis and repair, Genetics and mutagenesis, Transcription, Translation, Genetic manipulation, Cloning, Prokaryotic and eukaryotic gene regulation, Cancer research, Prokaryotic and viral genetics, Genetics and hormone systems, Immunogenetics, Developmental genetics, Plant and animal breeding, Plant, fungal and algal genetics, Vertebrate and invertebrate genetics, Human and medical genetics, Screening and inherited disorders.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



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1988: Volume 14 (12 issues)  
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**Subscription Information**  
1988: Volume 5 (12 issues)  
ISSN: 0741-1642 (735)



# EXPERIMENTAL GERONTOLOGY

Editor: **LEONARD HAYFLICK**, *University of California, San Francisco, School of Medicine, VAMC, Cell Biology and Aging Section (151 E), 4150 Clement Street, San Francisco, CA 94121, USA*

*Experimental Gerontology* is a bi-monthly journal devoted to the publication of the results of research that elucidate the processes of biological aging in plants, animals and humans from the molecular level to that of the whole organism. In addition to reports of original research, *Experimental Gerontology* also publishes review articles, theoretical or speculative articles, actuarial and mathematical reports, editorials, meeting reports, announcements, news items, book reviews and letters to the editor.

## A Selection of Papers

Biomarkers of aging, **R C ADELMAN**.

Review article: cell aging *in vitro*: an historical perspective, **J A WITOWSKI**.

Fetal and placental growth in young, primiparous and old, multiparous rats, **A RAHIMA & N W BRUCE**.

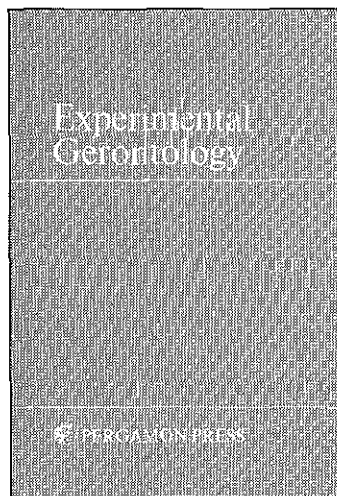
Comparison of calcium effect on *in vitro* calcitonin and parathyroid hormone release by young and aged thyroparathyroid glands, **N WONGSURAWAT & H J ARMBRECHT**.

Bioenergetics in the aging Fischer 344 rat: effects of exercise and food restriction, **W L RUMSEY et al.**

Relative deficiency of serine proteinase activities in spleens of aged mice, **T AOYAGI et al.**

The fine structural morphology of the midgut of aged *Drosophila*: a morphometric analysis, **L P GARTNER**.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, CABS, BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Nutr Abstr, Excerpta Medica, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 23 (6 issues)  
ISSN: 0531-5565 (291)

# FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES

The Official Journal of the European Group on Fracture

Editors-in-Chief: **K J MILLER**, *Department of Mechanical Engineering, University of Sheffield, Mappin Street, Sheffield S1 3JD, UK* and **L H LARSSON**, *Commission of the European Communities, D G XII/D/1, Arts 3139, Rue de la Loi 200, B-1049 Brussels, Belgium*

This international journal is devoted to research in the fatigue and fracture behaviour of engineering materials and structures, and draws together papers on the science, technology and engineering relevant to the understanding and control of the fatigue-fracture problem. The journal focuses attention on the interdisciplinary approach to the study of all forms of fracture processes, concentrating on engineering applications and design, mathematics, metallurgy, materials science, computer science, physics and chemistry.

All materials are covered in the journal, the main focus being on metals, polymers and composites, although attention is also paid to ceramics, concrete, wood and glass.

## A Selection of Papers

The effects of sub-critical crack growth on the fracture behaviour of cracked ferritic steels after warm prestressing,

**G G CHELL** (UK).

Analysis of fatigue crack propagation under biaxial loading using an inclined strip yield zone model of crack tip plasticity,

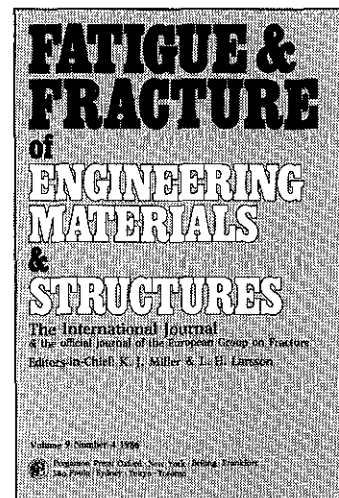
**J AHMAD** (USA) *et al.*

Near threshold fatigue crack propagation behaviour of a heterogeneous microstructure, **W V VAIDYA** (FRG).

A new method to predict the life under high-temperature low cycle fatigue conditions, **R DANZER** (Austria) & **J BRESSERS** (The Netherlands).

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volume 11 (6 issues)  
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## CURRENT ADVANCES IN NEUROSCIENCE

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Neuroscience* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 20,000 neuroscience titles annually, *Current Advances in Neuroscience* enables pure and applied neuroscientists to keep abreast of the ever-increasing literature being published in their subject area.

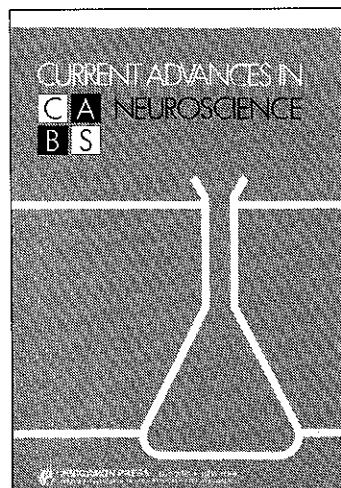
More than 1,200 biological journals covering all aspects of neuroscience are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 26 major subject headings with full cross-referencing.

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### Major Subject Areas Covered Include

Neurochemistry, Neurogenetics, Developmental neuroscience, Nerve cells: physiology, Pharmacology: peripheral nervous system, central nervous system, Blood-brain barrier, Cerebrospinal fluid, Cerebral circulation, Neurotransmitters, Integrative neurophysiology, Sensory systems, Behavioural pharmacology, Psychoneuroimmunology, Behavioural effects of neurotransmitters & hormones, Neurotoxins & toxins used as research tools, Invertebrate neurophysiology, Neuropathology, Methods in neuroscience.

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## CURRENT ADVANCES IN PHARMACOLOGY & TOXICOLOGY

Chief Editor: **H SMITH**, *University of Leicester, UK*  
Associate Editor: **P N CAMPBELL**, *Department of Biochemistry, University College, London WC1E 6BT, UK*  
Editorial Office: *CABS Office, 132 New Walk, Leicester LE1 7QQ, UK*

*Current Advances in Pharmacology & Toxicology* is a monthly publication from the *Current Awareness in Biological Sciences (CABS) Database*, designed to provide biologists working in any area of the subject with a current literature searching service which is fast, comprehensive, economical and, above all, easy to use. By retrieving more than 34,000 titles annually, *Current Advances in Pharmacology & Toxicology* enables pure and applied pharmacologists and toxicologists to keep abreast of the ever-increasing literature being published in their subject area.

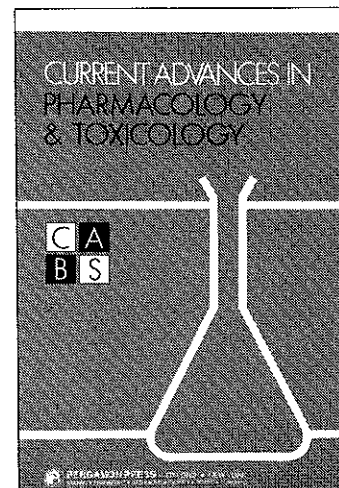
More than 1,900 biological journals covering all aspects of pharmacology and toxicology are scanned to provide a subject-categorized listing of titles, authors, bibliographic details and authors' addresses. Titles are presented under 137 subject headings with full cross-referencing.

Reprints of any article cited in this journal can be ordered through a document delivery service. Full details are available on request.

### Major Subject Areas Covered Include

General pharmacology, Pharmacokinetics, Drug metabolism, Drug interactions, Drug receptor theories, Second messengers, Drugs affecting the central nervous system, Neurotransmitters and their receptors, agonists and antagonists, Behavioural pharmacology, Autacoids, Chemotherapy of microbial diseases, Chemotherapy of parasitic diseases, Chemotherapy of neoplastic diseases, Immunopharmacology, Developmental and ageing pharmacology, Methods, Toxicology.

A PRODUCT OF THE CURRENT AWARENESS IN BIOLOGICAL SCIENCES (CABS) DATABASE



**Subscription Information**  
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ISSN: 0741-1685 (739)

# FREE RADICAL BIOLOGY & MEDICINE

The Official Journal of the Oxygen Society

Continuation of the *Journal of Free Radicals in Biology and Medicine* and *Advances in Free Radical Biology & Medicine*

Co-Editors: **WILLIAM A PRYOR**, *Biodynamics Institute, Louisiana State University, 711 Choppin, Baton Rouge, LA 70803-1800, USA* and **KELVIN J A DAVIES**, *Institute for Toxicology, Department of Biochemistry, The University of Southern California, HSC PSC 614-616, 1985 Zonal Avenue, Los Angeles, CA 90033, USA*

*Free Radical Biology & Medicine* is an international, interdisciplinary publication encompassing chemical, biochemical, physiological, pathological, pharmacological, toxicological and medical approaches to free-radical research. The journal welcomes reviews and original contributions dealing with all aspects of free-radical production, metabolism, damage, protection and measurement in biological systems.

## A Selection of Papers

Treatment of lymphocyte cultures with a hypoxanthine-xanthine oxidase system induces the formation of transferable clastogenic material, **I EMERIT** *et al.*

The role of antioxidants in the retina and retinal pigment epithelium and the nature of prooxidant-induced damage, **G J HANDLEMAN** & **E A DRATZ**.

Free radicals in tumor promotion, **T W KENSLER** & **B G TAFFE**.

Superoxide radical: a likely link between reperfusion injury and inflammation, **J M McCORD**.

Superoxide radical from xanthine oxidase acting upon lumazine, **T NAGANO** & **I FRIDOVICH**.

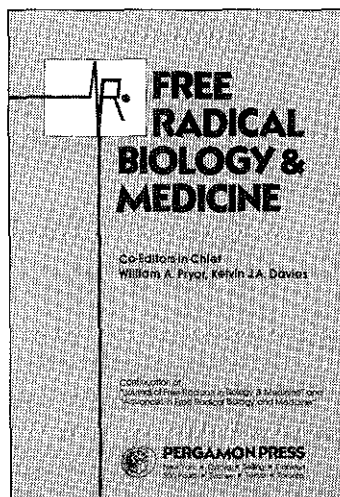
Phospholipid autoxidation, **N A PORTER** & **C R WAGNER**.

Relationship between oxygen metabolism, aging and development, **R S SOHAL** & **R G ALLEN**.

The generation and utilization of chlorinated oxidants by human neutrophils, **S T TEST** & **S J WEISS**.

Rat liver microsomal NADPH-dependent release of iron from ferritin and lipid peroxidation, **C THOMAS** & **S AUST**.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Science Citation Index, Biological Abstracts, Chemical Abstracts, Current Awareness in Biological Sciences (CABS)*



**Subscription Information**  
1988: Volume 4 (6 issues)  
ISSN: 0891-5849 (825)

# GENERAL PHARMACOLOGY

Editor: **GERALD A KERKUT**

Assistant Editor: **R J WALKER**, both of *Department of Physiology and Biochemistry, University of Southampton, Southampton SO9 5NH, UK*

*General Pharmacology* publishes original research papers on all aspects of pharmacology, although special consideration is given to articles dealing with the subject from a comparative point of view. Review articles and short communications are also published, and the journal contains book reviews.

Pharmacology is defined as the response of tissues, organs and animals to the application of chemicals, both natural and synthetic.

## A Selection of Papers

Noradrenaline inhibits vasoconstriction induced by electrical stimulation, **J ATKINSON** (France) *et al.*

Maturational age affects pirenperone dose-response pattern, **C GOODRICH** (USA) & **M DILLEHAY** (USA).

Motor activity of the rat duodenum *in vivo*: evidence for the existence of an atropine-resistant peristalsis, **C A MAGGI** (Italy) *et al.*

Effect of diphenylhydantoin on drug and calcium induced contractions of isolated rat uterus: a comparative study with nifedipine, **J B CALIXTO** (Brazil).

Opiate participation in thyroid hormone regulation in domestic fowl, **S HARVEY** (UK) *et al.*

Effects of a new anorectic drug (PM 170) on development of gold thioglucose-induced obesity in mice, **F MASSICOT** (France) *et al.*

Pharmacological properties of musk, **S-I MORISHITA** (Japan) *et al.*

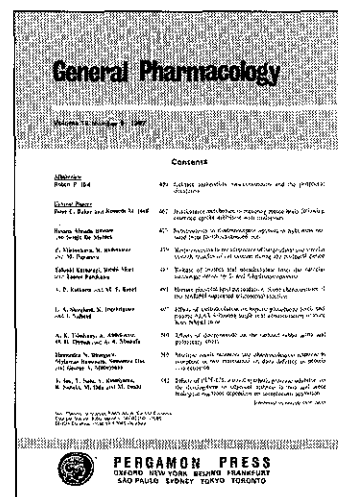
Adrenergic agonists do not compete with the antagonist (-)-3-<sup>125</sup>Iiodocyanopindolol for binding to rat pleural or peritoneal mast cell adrenergic receptor, **L M BOTANA** (Spain).

Central receptor binding and cardiovascular effects of GABA analogues in the cat, **G K MATHESON** (USA) *et al.*

A New Patents section is included in this journal.

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 19 (6 issues)  
ISSN: 0306-3623 (387)

## DATABASE TECHNOLOGY

The only journal exclusively devoted to the field of database.

An Information Update Journal

Editor: **DAVID BELL**, *Department of Computing Science, University of Ulster at Jordanstown, Shore Road, New Town Abbey, County Antrim BT37 0QB, Northern Ireland*  
Editorial Consultant: **PETER KING**, *Department of Computer Science, Birkbeck College, Mallet Street, London, WC1E 7HX*

*Information Update* is an new series of practical journals dealing with a range of contemporary computer topics. The creation of *Database Technology*, the first of this series, satisfies the increasing demand for pertinent, invaluable and up-to-date information which existing publications have failed to meet.

*Database Technology*, dealing as its name suggests, with the subject areas within the field of database design, administration and implementation, has been selected as the pioneer because of PI's long and close association with many of the world's major authorities on database.

As a leading provider of hard facts on computer topics, PI are in a unique position to supply relevant information which the DP manager requires to work efficiently and effectively.

The scope of *Database Technology* is wide - this first edition contains articles covering all the major areas associated with database by experts of worldwide renown and expertise.

### A Selection of Papers

Temporal data management, **R JOHNSON** (UK) & **N LORENTZOS** (UK).

Data Dictionary as an administrative tool - how to succeed in the Nineties, **S HOLLOWAY** (UK).

Must databases be centralised?, **F LAMOND** (UK).

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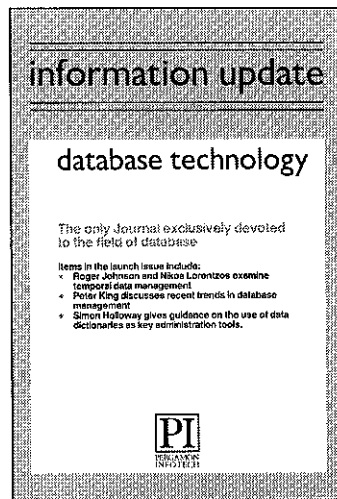
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# GEOFORUM

Managing Editor: **JUDITH A REES**, *Department of Geography, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, UK*  
 Executive Editors: **DAVID K C JONES & DEREK DIAMOND**, *London School of Economics and Political Science, Houghton Street, London WC2A 2AE, UK*

*Geoforum* is concerned with all aspects of the management of the human environment; an area of study broadly defined to encompass urban and regional planning, industrial development, resource allocation and the management of environmental systems. It is an international, multi-disciplinary journal, global in outlook, integrative in approach and policy oriented.

*Geoforum* provides rapid publication of original research papers, reports and reviews. The editors concentrate on publishing results of applied research of an international and interdisciplinary character, particularly that which promotes better understanding of the complex interrelationships that exist within and between the physical and socio-economic systems, and which helps forge links between the natural and social sciences. There are also special theme issues designed to provide a full treatment of topical, contentious and important questions.

## A Selection of Papers

Resource-based industrialization and country size: Venezuela and Trinidad and Tobago, **R M AUTY** (UK).

Gender-specific local labour market areas in England and Wales, **A E GREEN** (UK) *et al.*

The stability of spatial patterns of welfare - the Israeli case, **G LIPSHITZ** (Israel).

Some problems in planning the office economy in a third world city: the example of Tunis, **R PADDISON** (UK) & **A FINDLAY** (UK).

Marketing strategies: a container foreland study of the port of Miami, **B E MARTI** (USA).

Irrigation in sub-humid environments: a comparison of three cultures, **R H JACKSON** (USA) & **A SOFFER** (Israel).

The environmental effects of dam construction in tropical Africa: impacts and planning procedures, **W M ADAMS** (UK) & **F M R HUGHES** (UK).

Planned Bedouin settlement in Israel - a critique, **A SOFFER** (Israel) & **Y BAR-GAL** (Israel).

Bedouin settlement policy in Israel, 1964-1982: another perspective, **N KLIOT** (Israel) & **A MEDZINI** (Israel).

**Indexed/Abstracted in:** *Current Contents, Current Awareness in Biological Sciences (CABS)*

# GEO THERMICS

International Journal of Geothermal Research and its Applications

Editor-in-Chief: **ENRICO BARBIER**, *International Institute for Geothermal Research, Piazza Solferino 2, 56100 Pisa, Italy*  
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*Geothermics* is devoted to the research and development of geothermal energy. It promulgates the state of the art and science of geothermal energy, its exploration and exploitation through a regular exchange of information from all over the world. The journal publishes papers dealing with the theory, exploration techniques and all aspects of the utilization of geothermal resources. It serves as a scientific clearing house, through which the growing community of geothermal specialists can provide and receive information.

The International Board of Editors of *Geothermics* which comprises specialists in the various aspects of geothermal resources, exploration and development, guarantees the balanced, comprehensive view of scientific and technological developments in this promising energy field.

## A Selection of Papers

Shallow subsurface temperature surveys in the Basin and Range province, USA-I. Review and evaluation, **F H OLMSTED** (USA) *et al.*

The chemistry and hydrology of thermal springs on Efate, Vanuatu, SW Pacific, **A H BATH** (UK) *et al.*

Fluid chemistry of the Waimangu geothermal system, **D S SHEPPARD** (New Zealand).

Tengchong volcanic geothermal region, West Yunnan, China, **TONG WEI** (China).

Thermophilic microorganisms in the hot springs of Tengchong geothermal area, West Yunnan, China, **ZHANG YUN** (China).

Background, present state and future prospects of geothermal development, **R CATALDI** (Italy) & **C SOMMARUGA** (Italy).

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Engng Ind Monthly & Author Index, PASCAL-CNRS Database, Bulletin Signalétique, Geo Abstracts, Cambridge Sci Abstracts, Current Contents, Georef Information Systems, INSPEC*

## Geoforum

THE INTERNATIONAL MULTI-DISCIPLINARY JOURNAL FOR THE RAPID PUBLICATION OF RESEARCH RESULTS AND CRITICAL REVIEW ARTICLES IN THE PHYSICAL, HUMAN AND REGIONAL GEOSCIENCES

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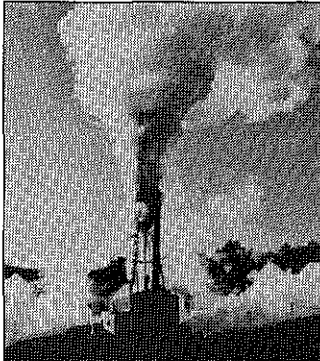
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## GEO THERMICS

International Journal of Geothermal Research and its Applications

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# DEFENSE ANALYSIS

An Important International Defense Journal

Edited by **MARTIN EDMONDS**, *Department of Politics, Fylde College, University of Lancaster, Lancaster LA1 4YT, UK*, and **ROGER BEAUMONT**, *Department of History, Texas A & M University, College Station, TX 77843, USA*,

Within three years *Defense Analysis*, has established itself as one of the leading Western journals of its kind and has already received high acclaim from distinguished readers on both sides of the Atlantic.

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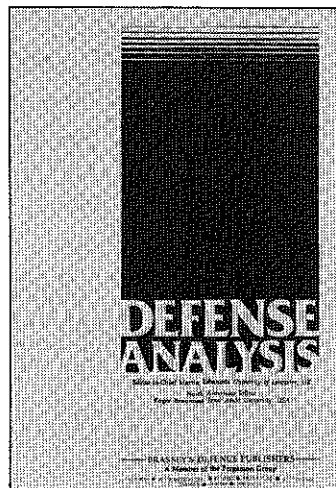
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## Subscription Information

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# DEVELOPMENTAL AND COMPARATIVE IMMUNOLOGY

## ONTOGENY . PHYLOGENY . AGING

The Official Journal of the International Society of  
Developmental and Comparative Immunology

Editor-in-Chief: **E L COOPER**, *Department of Anatomy,  
University of California, Los Angeles, CA 90024, USA*

*Developmental and Comparative Immunology* serves as a world forum for the rapid dissemination of original research that treats the development and maturation of the immune system in the broadest sense, emphasizing ontogenetic (including aging) and phylogenetic aspects. Contributions that deal with the problem of immunological diversification as revealed by the immune systems of various animal models are welcomed. The journal encompasses the following areas: Mechanisms of recognition of self and non-self at the cellular, molecular, and organismic levels; Cellular interactions; Immunologic molecules; Immunogenetics; Origins of antibody diversity; Immunologically relevant maternal fetal interactions. Papers in which precursors, homologs, cells and molecules of more primitive species are being used to aid the understanding of immunological systems in advanced animals are also included.

## A Selection of Papers

The humoral antibacterial response of drosophila adults,  
**M ROBERTSON & J H POSTLETHWAIT**.

Lytic activities in coelomic fluid of *Eisenia foetida* and  
*Lumbricus terrestris*, **L TUCKOVA et al.**

Evolutionary development of lymphocyte heterogeneity: leucocyte subpopulations in the pacific hagfish, **P GILBERTSON et al.**

A chromium release assay for the assessment of spontaneous and immune hemolysis of heterologous erythrocytes by sera of rainbow trout, **B H DANNEVIG & T BERG**.

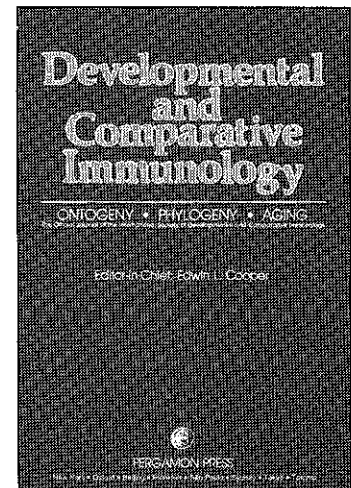
The second component (C2n) of the nurse shark complement system: purification, physico-chemical characterization and functional comparison with guinea pig C4, **S HYDER-SMITH & J A JENSEN**.

Variability in humoral responses to DNP-KLH of rainbow trout (*Salmo Gairdneri*). Comparison of antibody kinetics and immunoglobins spectrotypes between normal trouts and trouts obtained by gynogenesis or self-fertilization,

**M COSSARINI-DUNIER et al.**

Two cellular pathways regulate the response to TNP-Ficoll in *Xenopus laevis*, **R H CLOTHIER et al.**

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Contents/Agriculture, Bio & Environ Sci, CABS, BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Immuno Abstr, Allergol, Immunopathol, Excerpta Medica, Cambridge Sci Abstr, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 12 (4 issues)  
ISSN: 0145-205X (775)

# HEALTH PHYSICS

The Radiation Protection Journal

Official Journal of the Health Physics Society

Editor: **GENEVIEVE ROESSLER**, 202 Nuclear Science Center, University of Florida, Gainesville, FL 32611, USA

The purpose of this international journal is to disseminate information dealing with the protection of man and his environment from unwarranted ionizing and non-ionizing radiation exposure. Papers cover four general categories: research, engineering, applied and general, and fall into a wide range of fields such as: radiation protection recommendations and standards, radiation physics, nuclear physics, radiobiology, biophysics, radioecology, waste disposal, radiation accidents and applied and developmental work.

## A Selection of Papers

Indoor  $^{222}\text{Rn}$  measurements in the region of Beijing, People's Republic of China, **R TIANSHAN** *et al.*

Europium-152 depth profile of a stone bridge pillar exposed to the Hiroshima atomic bomb:  $^{152}\text{Eu}$  activities for analysis of the neutron spectrum, **H HASAI** *et al.*

A method of obtaining neutron dose and dose equivalent from digital measurements and analysis of recoilparticle tracks, **W E BLOCH** *et al.*

The impact of an isotopic effect on the interpretation of bioassay data for Pu, **M T RYAN** & **J W POSTON**.

Shielding requirements for mammography, **D J SIMPKIN**.

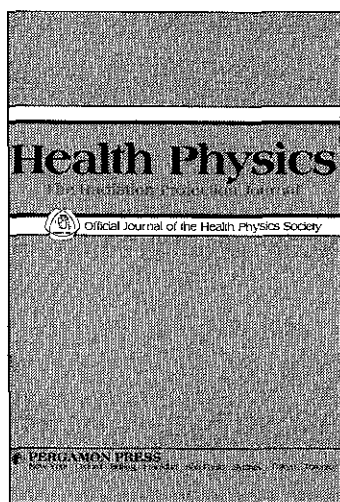
Radiation stimulation during the early stationary growth phase in *Synechococcus lividus* and its correlation with photooxidative stress occurring before the stationary phase, **A CONTER** *et al.*

Fallout  $^3\text{H}$  ingestion in Akita, Japan, **S HISAMATSU** *et al.*

Calibration of a nal spectrometer in dose equivalent quantities, **C AUSTERLITZ** *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Contents/Physical, Chemical & Earth Sciences, CABS, BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Chem Abstr, Nutr Abstr, Energy Res Abstr, Energy Data Base, WRC Info, Environ Per Bibl, Cancer Journals & Serials, PASCAL-CNRS Database*



## Subscription Information

1988: Volumes 54 & 55

(12 issues)

ISSN: 0017-9078 (250)

# HEAT RECOVERY SYSTEMS

## & CHP

### Combined Heat & Power

Editor-in-Chief: **DAVID A REAY**, *David Reay & Associates, PO Box 25, Whitley Bay, Tyne & Wear NE26 1QT, UK.*

The purpose of the journal is to provide up-to-date information on new technologies and innovations on all aspects of heat recovery systems and combined heat and power (CHP) which is increasingly used in modern industry around the world.

The close association which has emerged between the sciences of heat recovery and combined heat and power is evident from the papers published in the journal to date. The journal's scope has therefore expanded to link these two themes. Areas regularly covered include: energy recovery from prime movers, overall system performance, and applications, including district heating, system viability and economics.

Incorporating: new product and system data, reviews of cost effective equipment and systems, installation case histories and in-depth problem solving studies, data on economics of heat recovery with applications to both low and high temperature processes and economics of CHP systems. Other useful features: book reviews; news and reports on government policies; conference announcements; case studies; world directory of heat recovery equipment, manufacturers and suppliers.

## A Selection of Papers

A study of the optimum interaction between the working fluid and the absorbent in absorption heat pump systems, **M A R EISA** (Egypt) & **F A HOLLAND** (UK).

Heat transfer coefficients of double pipe heat exchanger with helical type roughened surface, **SHOU-SHING HSIEH** (Taiwan) *et al.*

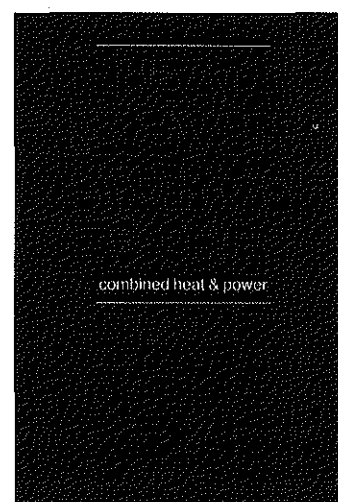
Developments in geothermal energy in Mexico. Solar evaporation applied to chemical recovery from Cerro Prieto I brines, **R ANGULO** (Mexico) *et al.*

The economics of heat pump systems for simultaneous heating and cooling, **S GHOSH** (India) *et al.*

A vapour re-compression heat pump using liquidised  $\text{CaCl}_2/\text{H}_2\text{O}/\text{NH}_3$  and  $\text{CaCl}_2/\text{NaSCN}/\text{NH}_3$  systems for thermochemical energy storage, **S B RIFFAT** (UK) *et al.*

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts*



## Subscription Information

1988: Volume 8 (6 issues)

ISSN: 0198-7593 (630)

# ECONOMIC BULLETIN FOR EUROPE

The Journal of the United Nations Economic Commission for Europe

Editor: **H-J LASSEN**, *United Nations Economic Commission for Europe, Palais des Nations, CH-1211 Geneva 10, Switzerland*

The *Bulletin* is one of the foremost European economic publications publishing studies on contemporary economic problems affecting Europe and North America in the context of the world economy. It reflects the full range of topics addressed by the UNECE in its economic research programmes, including: energy; environment; trade; industry; transport; economic analysis; human settlement projections and programming statistics; agriculture and forestry.

The *Bulletin* is particularly noted for its studies of East-West economic relations.

## A Selection of Recent Issues

Technology for control of air pollution from stationary sources.  
Recent changes in Europe's trade.  
Investment in the ECE region: long-term trends and policy issues.  
Biotechnology and economic development.  
Medium-term energy policies, perspectives and co-operation in Europe and North America to 1990.

# ECONOMICS OF EDUCATION REVIEW

Editor-in-Chief: **ELCHANAN COHN**, *Department of Economics, University of South Carolina, Columbia, SC 29208, USA*

Associate Editors: **STEPHEN A HOENACK**, *University of Minnesota, Minneapolis, MN 55455, USA*,  
**RICHARD J MURNANE**, *Harvard School of Education, Cambridge, MA 02138, USA* and **LEWIS C SOLMON**, *Graduate School of Education, UCLA, Los Angeles, CA 90024, USA*

Economists concerned with human resources and local government finance, specialists in education finance and educational administrators need to be aware of the latest research in the economics of education.

*Economics of Education Review* encourages the development of sound theoretical, empirical and policy research, demonstrating the role of economic analysis in the solution or improved understanding of educational problems and issues. The journal encourages the interaction of ideas and research methods and results between economists and other scholars interested in the economic dimensions of education. From time to time the journal also publishes book reviews, review articles and literature surveys.

## A Selection of Papers

The public/private division of responsibility for education: an international comparison, **E JAMES** (USA).

Union-negotiated employment rules and teacher quits, **R W EBERTS** (USA).

The effect of education in Nepal's traditional agriculture, **D DHAKAL** (USA) *et al.*

The impact of consumer credentialism on employee and entrepreneur returns to higher education,

**I B TUCKER III** (USA).

Determinants of youths' educational and occupational goals: sex and race differences, **E P HOFFMAN** (USA).

University education as a homogenizing process: an exploratory study, **H MATOS-DIAZ** (Puerto Rico).

Municipal overburden: an empirical analysis, **H E BRAZER** (USA) & **T A McCARTY** (USA).

Selectivity bias and the determinants of SAT scores, **A BEHRENDT** (USA) *et al.*

The merits of a longer school day, **C R LINK** (USA) & **J G MULLIGAN** (USA).

UK research into school costs and resources, **J R HOUGH** (UK) & **S J WARBURTON** (UK).

ECONOMIC BULLETIN  
FOR EUROPE

The Journal of the  
United Nations  
Economic Commission  
for Europe

## Subscription Information

1988: Volume 40 (4 issues)

ISSN: 0041-638X (661)

Economics of  
Education Review

Edited by  
Elchanan Cohn  
University of South Carolina, Columbia, USA



Pergamon Press

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1988: Volume 7 (4 issues)

ISSN: 0272-7757 (743)



# IFAC PROCEEDINGS SERIES

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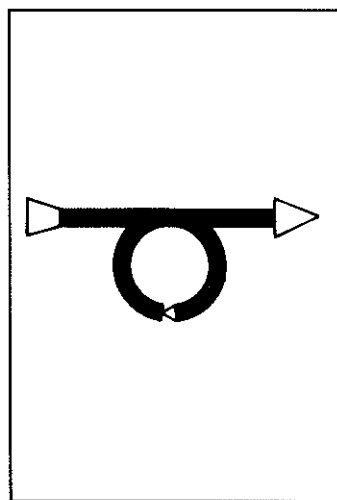
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## Subscription Information

1988: (10 volumes)  
ISSN: 0742-5953 (319)



# IMAGING ABSTRACTS

(Formerly *Photographic Abstracts*)

A bi-monthly survey of the world literature and patents on the science, technology and applications of imaging.

Compiled and edited by the **Imaging Science and Technology Group of the Royal Photographic Society of Great Britain**

First published in 1921, *Imaging Abstracts* is recognized throughout the world as the only authoritative and useful means of searching the scattered literature and patents of imaging science and technology and its varied applications.

About 4,500 abstracts are published each year, and since its inception the journal has published over 100,000 records. Besides those areas normally associated with imaging and photography there are astronomy, optics, photocopying, microscopy, information storage, lighting, nuclear radiography, printing, polymers, remote sensing, ballistics, television and video.

*Imaging Abstracts* is available exclusively through Pergamon ORBIT InfoLine as an online database incorporating abstracts going back to 1975.

## Contents

In two sections: *Abstracts of the Journal Literature*, and *Abstracts of Patent Specifications*. Within these sections the abstracts are classified under the following headings for ease of use: Aerial photography and photogrammetry. Astronomical photography. Camera accessories. Cameras and enlargers. Cinematography. Colour photography. Copying. Electron microscopy. Electronic photography. Emulsions. Exposure. Filters. High-speed photography. Holography and interferometry. Lighting. Medical photography. Microfilm. Photographic chemicals and solutions. Photographic systems (electro-photographic, inorganic, organic, physical, polymeric, thermographic). Photography by radiations other than light. Photomechanical processes. Photomicrography and macrophotography. Preparation of light-sensitive materials. Processing. Projection. Properties of the developed image. Pure and applied sciences related to photography. Radiography. Recovery of materials. Scientific applications of photography. Sensitivity and sensitometry. Space photography. Stereophotography. Video recording. Index.

## Subscription Information

1988: (6 issues)  
ISSN: 0896-100X (766)  
*Imaging Abstracts Database*  
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Pergamon ORBIT InfoLine.

# ELECTROCHIMICA ACTA

The Journal of the International Society of Electrochemistry (I.S.E.)

Editor-in-Chief: **R D ARMSTRONG**, *Electrochemistry Research Laboratories, School of Chemistry, University of Newcastle-upon-Tyne, Newcastle-upon-Tyne NE1 7RU, UK*

North American Regional Editor: **E J CAIRNS**, *Applied Science Division, Building 90, Lawrence Berkeley Laboratory, University of California, Berkeley, CA 94720, USA*

*Electrochimica Acta* publishes original papers and critical reviews in the field of pure and applied electrochemistry by both members and nonmembers of the society. The areas covered include: fundamental interfacial electrochemistry, electrode and electrolyte materials, analytical electrochemistry, molecular electrochemistry, electrochemical energy conversion, corrosion, electrodeposition and surface treatment, industrial electrochemistry and electrochemical engineering, organic and bioelectrochemistry, electrochemical kinetics and electro-analysis, electrochemical physics and electrochemical dynamics.

Short communications of extreme topical interest are published when possible in camera-ready form, to ensure the rapid dissemination of knowledge.

## A Selection of Papers

Progress in the understanding of the mechanism of chlorine evolution at oxide electrodes, **S TRASATTI** (Italy).

Electrochemistry at the interface between two immiscible electrolyte solutions, **H H GIRAULT** (UK).

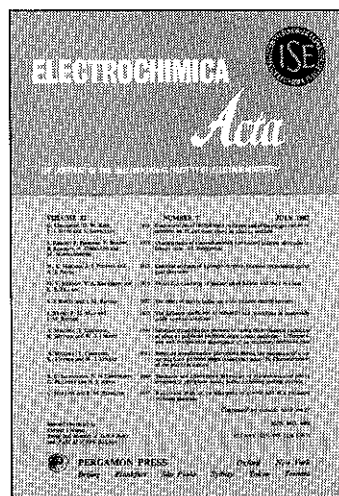
Electrocatalytic oxidation of 1,2-propanediol - I. Behaviour of platinum adatom electrodes in acid medium, **P OCON** (France) *et al.*

Electrochemistry of liquid membranes: interfacial aspects, **J KORYTA** (Czechoslovakia).

Radiotracer study of the adsorption of DL-alpha-alanine and gamma-amino-butyric acid at a platinized platinum electrode, **G HORANYI** (Hungary) & **E M RIZMAYER** (Hungary).

Surface concentration of blocking species from the inhibition of the pseudo-capacitive response of ad-layer formation reactions, **R I TUCCERI** (Argentina) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 33 (12 issues)  
ISSN: 0013-4686 (205)

# ELECTRON MICROSCOPY REVIEWS

## Subcellular and Biomolecular Structure

Editor-in-Chief: **J R HARRIS**, *North East Thames Regional Transfusion Centre, Crescent Drive, Brentwood, Essex CM15 8DP, UK*

Associate Editors: **R W HORNE**, *School of Biological Sciences, University of East Anglia, Norwich NR4 7TJ, UK* and **WAH CHIU**, *Department of Biochemistry, University of Arizona, USA*

*Electron Microscopy Reviews* provides critical, up-to-date reviews of new developments in the field of transmission and scanning transmission electron microscopy of subcellular organelles, membrane fractions, macromolecules and macromolecular assemblies from animal, plant, fungal and bacterial cells. Also included will be extracellular proteins and supportive structures, together with viral particles and their components. Emphasis is placed upon results and applications together with methodology. Reviews which include high resolution studies leading to two- and three-dimensional image analysis and reconstruction are particularly welcomed. The correlation of biophysical, biochemical, immunological and other data of a structural and functional nature with that derived from electron microscopy is encouraged.

The journal will publish material of the highest quality which has undergone strict editorial control. The reproduction of all electron micrographs will be to a consistently high standard.

## A Selection of Papers

Sendai virion structure and its interaction with cellular membranes, **Y HOSAKA** (Japan).

Freeze-drying of biological structures for TEM, **U AEBI** (Switzerland).

Immunoelectron microscopical studies on viruses, **J L CARRASCOSA** (Spain).

Artificial biological membrane ultrastructural changes caused by freezing, **S FUJIKAWA** (Japan).

Ribosome structure, **V VASILIEV** (USSR).

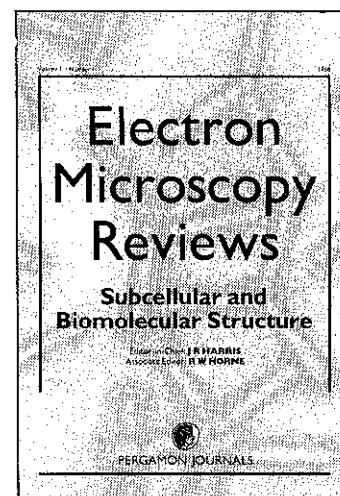
EM studies of respiratory chain complexes, **E F J VAN BRUGGEN** (The Netherlands).

Proteoglycans and cartilage structure, **J A BUCKWALTER** (USA).

Basement membrane structure and function, **H FURTHMAYER** (USA).

Ultrastructure and composition of refractile bodies in bacteria, **I GIBSON** (UK) & **R W HORNE** (UK).

Image analysis of single macromolecules, **J FRANK** (USA).



**Subscription Information**  
1988: Volume 1 (2 issues)  
ISSN: 0892-0354 (822)

# THE INTERNATIONAL JOURNAL OF APPLIED ENGINEERING EDUCATION

Editor-in-Chief: **MICHAEL S WALD**, *Fachhochschule Hamburg, Berliner Tor 21, 2000 Hamburg 1, FRG*

This multilingual journal serves as a forum and central source of reference for engineering education with emphasis on undergraduate university and polytechnic education. A balance between papers on developments in educational methods and technology, case studies, laboratory applications, new theoretical approaches, educational policy and survey papers is aimed for.

Comprehensive coverage of new education schemes and techniques makes the journal a unique source of ideas for engineering educators who are keen to keep abreast with latest developments in educational applications in all fields of engineering.

Some of the areas covered more extensively in recent issues are: CAD, CAE, computer applications in teaching thermodynamics, materials science, electrical engineering, new courses and curricula, engineering management, control engineering, mechanical engineering, engineering design, student evaluation, institutional accreditation, and international and co-operative education programmes.

## A Selection of Papers

Learning reality from examples: case studies compared, **W E EDER** (Canada).

An integrated approach to curriculum design for engineering education, **Z J PUDLOWSKI** (Australia).

Electrical machines teaching: an integrated theoretical/practical course, **J HINDMARSH** (UK).

Computer-assisted instruction as a supplement to statics, **J H FORRESTER** (USA).

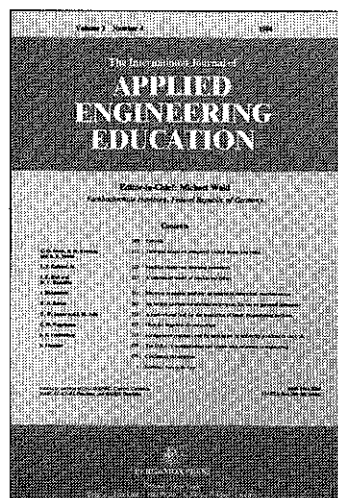
Practising a problem-solving strategy with computer tutorials, **P A ROSATI** (Canada).

Educational software development using spreadsheet program, **S MALASRI** (USA) &

**S-R SYED-MOHAMMAD RIDZUAN** (USA).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *INSPEC*



**Subscription Information**  
1988: Volume 4 (6 issues)  
ISSN: 0742-0269 (219)

# INTERNATIONAL JOURNAL OF BIOCHEMISTRY

Editor: **GERALD A KERKUT**, *Department of Physiology and Biochemistry, University of Southampton, Southampton SO9 3TU, UK*

Assistant Editor: **IAN GILES**, *Department of Physiology and Biochemistry, University of Southampton, Southampton SO9 3TU, UK*

The *International Journal of Biochemistry* is a well-established journal which provides a comprehensive coverage of new research in the growth areas of biochemistry. Topics covered include: theoretical biochemistry; plant and animal biochemistry; bacterial biochemistry; fungal biochemistry; clinical biochemistry; applied biochemistry.

## A Selection of Papers

Phosphodiesterase from the venom of *Crotalus ruber ruber*, **N MORI** (Japan) *et al.*

Effect of phosphatidyl- *L*-serine and vinculin on actin polymerization, **T YAMAMOTO** (Japan) *et al.*

Inactivation of yeast nucleotidyl transferase and its effect on the integrity of the amino acid acceptor end of transfer RNA,

**J M DEL RIO** (Spain) & **C F HEREDIA** (Spain).

Mechanism and quantitative contribution of the pentose pathway to the glucose metabolism of Morris Hepatoma 5123C,

**K K ARORA** (Australia) *et al.*

Turnover of ribosomal proteins in regenerating rat liver after partial hepatectomy, **E N NIKOLOV** (Bulgaria) *et al.*

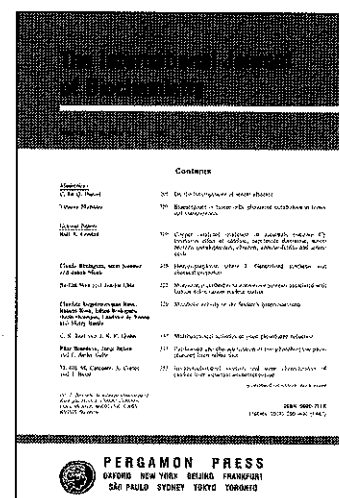
Ethanol and leucine oxidation - III. Leucine oxidation by rat heart *in vitro*, **M BOGOYEVITCH** (Australia) *et al.*

Release of iron from endosomes is an early step in the transferrin cycle, **D L BAKKEREN** (The Netherlands) *et al.*

Effect of clofibrate treatment on glutathione content and the activity of the enzymes related to peroxide metabolism in rat liver and heart, **V D ANTONENKOV** (USSR) *et al.*

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), BIOSIS Database*



**Subscription Information**  
1988: Volume 20 (12 issues)  
ISSN: 0020-711X (395)

# ENERGY

The International Journal

Editor: **S S PENNER**, *Energy Center, University of California, San Diego, La Jolla, CA 92093, USA*

This journal is a multi-disciplinary resource medium for activities relating to the development, assessment and management of energy-related programs. *Energy* is exceptional in its comprehensive approach to energy-related topics involving a wide variety of fields. This is reflected in the range of papers published and their quality and clarity of presentation.

Topics encompassed by the journal include: economic and environmental aspects, energy-conservation measures and implementation, evaluation of energy-systems, policy alternatives, designs, applications, costs and management.

## A Selection of Papers

Wind energy assessment in Turkey,

**E TASDEMİROGLU** (Turkey).

Brazil, ethanol and the process of system change,

**D SPERLING** (USA).

Time/temperature variations in the storage zone of salt-gradient solar ponds, **HO-MING YEH** (Taiwan) *et al.*

Incinerator production, fate and health effects of polychlorinated dioxins and furans, **S S PENNER** (USA) *et al.*

The premium for self-sufficiency in liquid fuels,

**S J GALE** (New Zealand).

Performance equations for a closed-loop water-heating system using a solar air-heating collector, **N K BANSAL** (India) *et al.*

Energy assessment of Bahrain, **N S AL-BAHARNA** (Bahrain).

Solar power subsidization, **M E BRADY** (USA).

A comparative analysis of net energy from woody biomass,

**R HERENDEEN** (USA) & **S BROWN** (USA).

Socio-economic constraints on the design of solar domestic hot-water systems for India, **J P PAINULY** (India) *et al.*

An optimal algorithm for drilling strategy,

**ABDEL-LATIF A QAHWASH** (Saudi Arabia).

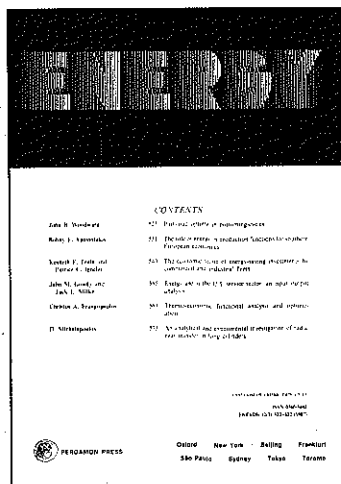
Second-law analysis of a two-dimensional regenerator,

**J Y SAN** (China) *et al.*

The value of energy carriers, **W VAN GOOL** (The Netherlands).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, CABS, BIOSIS Database, INSPEC, Engng Ind Monthly & Author Index*



**Subscription Information**  
1988: Volume 13 (12 issues)  
ISSN: 0360-5442 (483)

# ENERGY CONVERSION AND MANAGEMENT

An International Journal

Editor-in-Chief: **JESSE C DENTON**, *PO Box 355, Belton, TX 76513 USA*

The journal provides a medium through which energy conversion and management can be treated as a coherent subject. Papers of high technical merit are published in areas dealing with primary energy sources and systems, both direct and dynamic conversion processes and problems associated with regulations and control. Subjects discussed include magnetohydrodynamics, nuclear and geothermal design principles associated with the requirements of conversion systems, solar collection, energy storage, alternative energy and advances in the generation of heat from chemicals and applications of fossil fuel.

## A Selection of Papers

A simplified model for simulating solar thermal systems,

**A S ELASFOURI** (Libya) & **M M HAWAS** (Libya).

Absorption spectra of metal particles-dielectric layer system in the wavelength range 0.5-2.0 $\mu$ m, **M MISHRA** (India) &

**A CHANDRA** (India).

Transient analysis of double-pipe heat exchanger coupled to flat-plate solar collector, **Y P YADAV** (India) &

**G N TIWARI** (India).

Performance prediction of two models of solar water heaters using a thermal trap, **J PRAKASH** (Italy) & **E CARNEVALE** (Italy).

Performance and testing of improved natural circulation type solar water heaters in arid areas, **N M NAHAR** (India) & **J P GUPTA** (India).

Study on shallow solar pond applications at Tehran,

**H M ALI** (Iran).

Solar energy availability at Tehran: performance of different types of solar collectors, **H M ALI** (Iran).

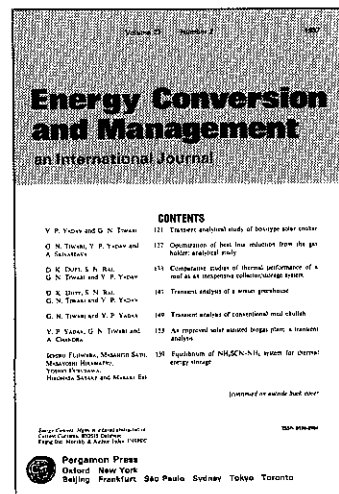
Experimental investigation of the possible correlation of wind speed on insolation, **A C AGBAKA** (Nigeria).

Analytical model of solar swimming pool: transient approach, **Y P YADAV** (India) & **G N TIWARI** (India).

Analysis of a combined photovoltaic-thermal system consisting of a linear solar concentrator and a tubular absorber, **S N SHARAN** (India) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS Database, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 28 (4 issues)  
ISSN: 0196-8904 (269)

# INTERNATIONAL JOURNAL OF EDUCATIONAL RESEARCH

(Formerly *Evaluation in Education*)

Sponsored by the Foundation for Educational Research in The Netherlands (SVO).

Published in association with the European Association for Research on Learning and Instruction (EARLI).

Editors: **HERBERT J WALBERG**, *University of Illinois at Chicago, Box 4348, Chicago, Illinois 60680, USA*,  
**T NEVILLE POSTLETHWAITE**, *Institute of Comparative Education, University of Hamburg, Sedanstrasse 19, 2000 Hamburg 13, FRG*, **BERT P M CREEMERS**, *Institute for Educational Research, University of Groningen, The Netherlands* and **ERIK DE CORTE**, *Centre for Instructional Psychology, University of Leuven, Vesaliusstraat 2, B-3000 Leuven, Belgium*

*International Journal of Educational Research* gives educators and educational research workers the most significant and up to date investigations in educational evaluation conducted in countries other than their own. Each issue consists of a research monograph on a single topic or an edited thematic collection of closely related papers.

## A Selection of Issues

Acquisition and transfer of knowledge and cognitive studies,  
**E DE CORTE** (Belgium).

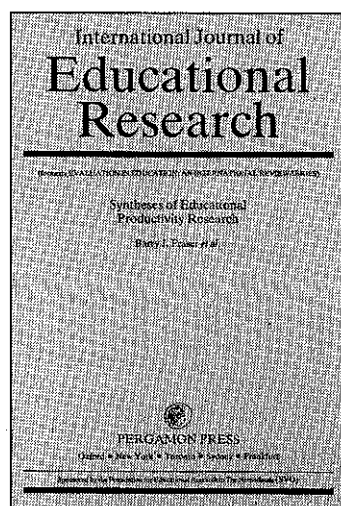
Developments in training methods for teaching education,  
**H H TILEMMA** and **S VEENMAN** (The Netherlands).

Education data system redesign, **R C TAEUBER** (USA).

Students' evaluations of university teaching: research findings, methodological issues and directions for future research,  
**H W MARSH** (Australia).

Synthesis of educational productivity research,  
**B J FRASER** *et al.*

Educational evaluation: the state of the field,  
**R M WOLF** (USA).



## Subscription Information

1988: Volume 12 (8 issues)

ISSN: 0893-0355 (491)

Combined subscription available with *Studies in Educational Evaluation*

# INTERNATIONAL JOURNAL OF ENGINEERING SCIENCE

Editor-in-Chief: **A CEMAL ERINGEN**, *Department of Aerospace and Mechanical Sciences, Engineering Quadrangle, Princeton University, Princeton, NJ 08540, USA*

The *International Journal of Engineering Science* publishes original research pertaining to the application of the physical, chemical and mathematical sciences to engineering. Emphasis is given to those contributions concerned with the cross-fertilization of these fields and research in the allied regions of mechanics, electricity and magnetism, thermodynamics, physical chemistry, both from continuum and molecular points of view. Applied research involving recent developments is welcome in such interdisciplinary areas as biomechanics, system theory, energy and approximation theory, applied and computational mathematics, as applied to basic problems in engineering science.

## A Selection of Papers

Coupled evolution equations of deformable semiconductors,  
**B MARUSZEWSKI** (Poland).

Diffraction of elastic waves by an elliptic crack - II,

**A ROY** (India).

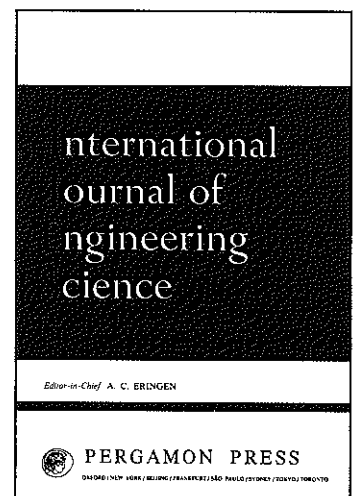
The effect of a boundary on the motion of a sphere in polar fluids, **H RAMKISSOON** (West Indies).

The impact of a rigid axisymmetric indenter on a viscoelastic half-space, **G C W SABIN** (Canada).

Tensor calculus of local Cartesian coordinates on a curved surface, **L S D MORLEY** (UK).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Chemical Abstracts, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volume 26 (12 issues)

ISSN: 0020-7225 (278)

# ENVIRONMENT INTERNATIONAL

A Journal of Science, Technology, Health, Monitoring and Policy

Editor-in-Chief: **ALAN MOGHISSI**, PO Box 7166, Alexandria, VA 22307, USA

Managing Editor: **BARBARA MOGHISSI**, PO Box 7166, Alexandria, VA 22307, USA

*Environment International*, published bi-monthly, is a multi-disciplinary forum for the publication of original environmental literature. Vital data, causes of pollution, and methods for protection are all featured, covering the entire field of environmental protection.

*Environment International* includes contributions from the following areas: concentration of elements and compounds, notably pollutants; release rates of pollutants from various sources; transport of pollutants in the environmental media; health and ecological effects of pollutants; control technologies; description and interpretation of laws, regulations and standards; information which will contribute to the understanding of environmental behaviour of pollutants or will promote environmental protection; public policy alternatives including legislation; national and international recommendations and practices to help bring about a lasting improvement in environmental protection.

## A Selection of Papers

Suspended particulate matter in dwellings - the impact of tobacco smoking, **P REVSBECH** (Denmark) *et al.*

Environmental tobacco smoke: the use of mathematical models to predict health effects, **W A CRAWFORD** (Australia).

Cancer risks in relation to other health hazards in a modern society, **O H IVERSEN** (Norway).

Indoor air pollution and inter-room pollutant transport due to unvented kerosene-fired space heaters,

**G W TRAYNOR** (USA) *et al.*

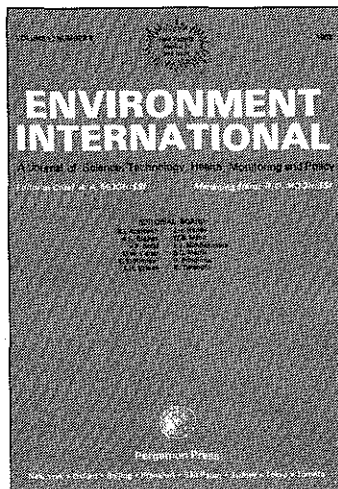
Distinguishing between healthy and sick preschools by chemical classification, **J C BAIRD** (USA) *et al.*

Influence of cloth structure on operational characteristics of pulse-jet cleaned filter bags, **K T HINDY** (Egypt) *et al.*

Heavy metal contents of epiphytic acrocarpous mosses within inhabited sites in southwest Nigeria, **P C ONIAN WA** (Nigeria) & **S O AJAYI** (Nigeria).

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents/Agriculture, Chemical Abstracts, BIOSIS Database, Eng Ind Monthly & Author Index, Environ Per Bibl, Current Awareness in Biological Sciences (CABS), Energy Res Abstr, Energy Database, Excerpta Medica, Geo Abstr, Sci Cit Index & Biology & Environmental Sciences*



**Subscription Information**  
1988: Volume 14 (6 issues)  
ISSN: 0160-4120 (226)

# ENVIRONMENTAL AND EXPERIMENTAL BOTANY

An International Journal

Editor-in-Chief: **M W MILLER**, Department of Radiation Biology and Biophysics, School of Medicine and Dentistry, The University of Rochester, Rochester, NY 14642, USA

*Environmental and Experimental Botany* publishes research papers on the physical and biological mechanisms that relate to the working of plant systems and their interaction with the environment.

Experimental areas covered by the journal include: (1) Radiation botany; (2) Photobotany; (3) Chemical mutagenesis; (4) Anatomy and morphology; (5) Cytogenetics and (6) Somatic cell genetics.

Environmental areas covered by the journal include: (1) Pollution effects; (2) Plant-soil/water/atmosphere/temperature relations; (3) Phytopathology; (4) Gravitational botany; and (5) Species dispersal and propagation. In addition to research papers, the journal offers review articles commissioned by the editors.

## A Selection of Papers

Effects of artificial seawater on the ultrastructure and morphometry of taro (*Colocasia esculenta*, Araceae) cells *in vitro*, **L P NYMAN** *et al.*

Sucrose regulation of protein synthesis in pea root meristem cells, **P L WEBSTER & M HENRY**.

Greenbug damage on the aerial vegetative growth of two barley cultivators, **A M CASTRO & C P RUMI**.

Influence of cell size on differentiation of root meristem cells, **A CUADRADO** *et al.*

Photosynthetic characteristics in leaves of 'Valencia' orange (*Citrus sinensis* (L.) Osbeck) grown under high and low temperature regimes, **J C V VU & G YELENOSKY**.

Evidence that auxin-induced xylogenesis in *Lacutuca* explants requires calmodulin, **L W ROBERTS & S BABA**.

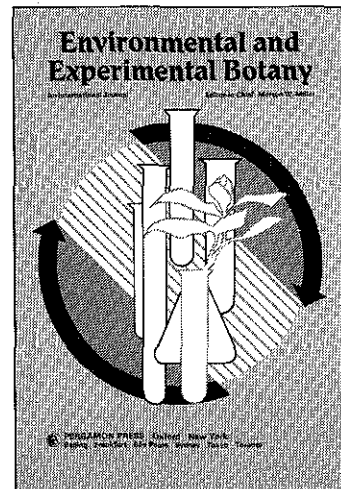
Gamma-ray-induced biochemical changes in the outer mitochondrial membrane from kidney bean hypocotyls, **K U PAI & B K GUAR**.

Photometric quantification of *in vitro* pollen tube growth: a new method suited to determine the cytotoxicity of various environmental substances, **R KAPPLER & U KRISTEN**.

Biochemical studies on the toxicity of linear alkybenzene sulphionate to *Scenedesmus quadricauda* in culture, **G CHAWLA** *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Agriculture Biology & Environmental Sciences, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL - CNRS Database, Science Citation Index, INSPEC*



**Subscription Information**  
1988: Volume 28 (4 issues)  
ISSN: 0098-8472 (267)

# INTERNATIONAL JOURNAL OF HYDROGEN ENERGY

Official Journal of the International Association for Hydrogen Energy

Editor-in-Chief: **T NEJAT VEZIROGLU**, *College of Engineering, University of Miami, Coral Gables, FL 33124, USA*  
Associate Editor: **JOHN W SHEFFIELD**, *Mechanical and Aerospace Engineering Department, University of Missouri-Rolla, Rolla, MO 65401, USA*

The *International Journal of Hydrogen Energy* provides scientists and engineers throughout the world with a central vehicle for the exchange and dissemination of data and research developments in the field of hydrogen power. Attention is focussed on original research, both analytical and experimental, which is of significant interest, covering all aspects of hydrogen energy including production, storage, transmission, utilization, as well as the economical, environmental and international implications.

## A Selection of Papers

Hydrogen energy research and development in India - an overview, **M V C SASTRI** (India).

A polarization model for protonic solid electrolyte fuel cells, **J D CANADAY** (Canada) *et al.*

Comparison and evaluation of electrocatalytic materials in electrochemical hydrogen production, **G FIORI** (Italy) & **C M MARI** (Italy).

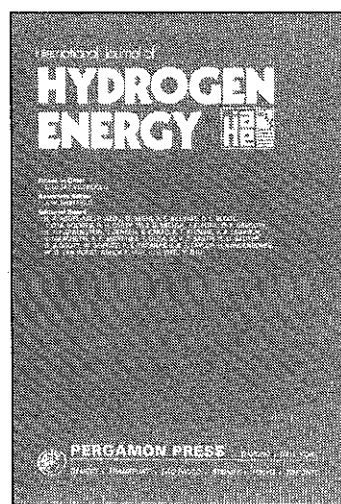
Hydrogen-air deflagrations and detonations: numerical calculation of 1-D tube combustion processes, **H EICHERT** (FRG).

Water induction studies in a hydrogen-diesel dual-fuel engine, **G P PRABHUKUMAR** (India) *et al.*

Bibliography on the hydrogen energy and technology (USSR), **R F ALIMOVA** (USSR) *et al.*

New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index*



**Subscription Information**  
1988: Volume 13 (12 issues)  
ISSN: 0360-3199 (485)

# JOURNAL OF IMMUNOPHARMACOLOGY

Including Immunotoxicology

The Official Journal of the International Society for Immunopharmacology

Editors: **P W MULLEN**, *Kemic Bioresearch Laboratories Ltd, 7 The Industrial Mall, PO Box 878, Kentville, Nova Scotia B4N 4H8, Canada*, **J W HADDEN**, *Immunopharmacology Program, University of South Florida Medical College, 12901 N. 30th Street, Tampa, FL 33612, USA* and **F SPREAFICO**, *Istituto di Ricerche Farmacologiche, 'Mario Negri', Via Eritrea 62, 201 Milano, Italy*

The *International Journal of Immunopharmacology* publishes original high-quality scientific contributions, particularly those of obvious clinical relevance which interrelate pharmacology and immunology. The following topics are among those covered by the journal:

- Immunotoxicology. Studies of the adverse effects of xenobiotics on the immune system.
- The use of drugs and other chemicals as tools in investigating the nature and role of various components of the immune response.
- Drug pharmacokinetic studies in which an attempt is made to relate observed pharmacokinetic and immunological parameters.
- Studies on the role of lymphocytes and other cells of the immune system in the biotransformation of xenobiotics.

## A Selection of Papers

Immunosuppressive properties of new side chain sterol hydroperoxides and of the corresponding alcohols, **E MOREL** (France) & **M GUYOT** (France).

Halothane hepatitis: attempt to develop an animal model, **J M NEUBERGER** (UK) *et al.*

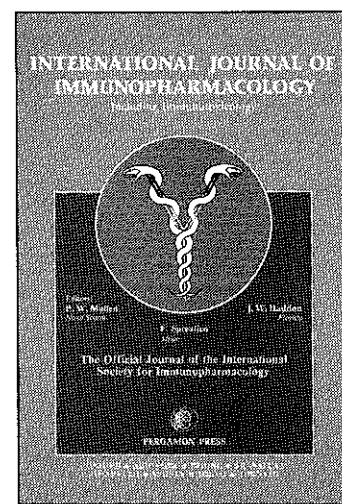
Immunoreconstitution of T-cell impairments in asymptomatic male homosexuals by thymic humoral factor (THF), **Z T HANDZEL** (Israel) *et al.*

Changes in lymphocyte subsets after treatment with cyclophosphamide and during the development of contact sensitivity in the guinea pig, **D BAKER** (UK) *et al.*

Immunomodulating activity of RU 41740: *in vitro* and *in vivo* studies on human lymphocytes, **P L MERONI** (Italy) *et al.*

Drug-concentration dependent sensitivity to lysis by antibody and complement, of adriamycin- or mitomycin- treated murine lymphoma cells, **J-Y LEROUX** (Canada) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 10 (8 issues)  
ISSN: 0192-0561 (518)

# EUROPEAN POLYMER JOURNAL

Founder Editor: **M STACEY** FRS, *University of Birmingham, UK*  
Joint Editors-in-Chief: **J C BEVINGTON**, *Department of Chemistry, The University, Lancaster, UK* and **J V DAWKINS**, *Department of Chemistry, The University of Technology, Loughborough, Leicestershire, UK*

This journal acts as a medium for the exchange of research in the area of macromolecular substances, both synthetic and natural, and publishes results bearing on the physics or chemistry of polymers. Papers may fall either into the category of original papers dealing with substances of high molecular weight, or that of review articles covering the literature on topical aspects of polymer science and technology. The languages of the journal are English, French, German and Italian; for all papers an abstract is provided, and in the case of the latter three languages the abstract also appears in English translation.

## A Selection of Papers

The involvement of 2-vinylthiophene and 2-styrylthiophene in the radical polymerization of methyl methacrylate,

**J C BEVINGTON** (UK) *et al.*

Polymerization by phase transfer catalysis - V. Polycarbonates from diphenols with aromatic side groups,

**L H TAGLE** (Chile) & **F R DIAZ** (Chile).

Fixation de lysine par sa fonction  $\alpha$ NH, sur chaîne oligométhacrylique, **A LAGUERRE** (France) *et al.*

Physical characterization of blends of isotactic poly(butene-1) with ethylene-propylene copolymer, **J K KALLITSIS** (Greece) & **N K KALFOGLOU** (Greece).

Exchange reactions on polyarylate-phenoxy blends: their influence on the physical and mechanical behaviour,

**I MONDRAGON** (Spain) *et al.*

Electrochemical polymerization of dicarboxylic acids - III.

Quantitative results in the electrolysis of adipic acid,

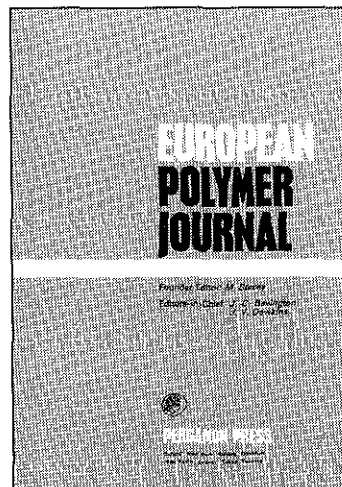
**A GOZLAN** (Israel) & **A ZILKHA** (Israel).

Unsaturated polyesters - IV. Kinetics of polyesterification of cinnamylsuccinic acid with 1,4-tetramethylene glycol,

**A F SHAABAN** (Egypt) *et al.*

Electrical properties of iron phthalocyanine systems with a mixed valenced central iron atom, **J BIJWE** (India) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Technology Index, Engng Ind Monthly & Author Index, INSPEC, Polymer Science and Technology Database (RSC), RAPRA Database*



**Subscription Information**  
1988: Volume 24 (12 issues)

# EVALUATION AND PROGRAM PLANNING

An International Journal

Editor-in-Chief: **JONATHAN A MORELL**, *Oak Ridge National Laboratory, Energy Division, Technology Transfer Group, PO Box X, Oak Ridge, TN 37831, USA*

*Evaluation and Program Planning* is based on the principle that the techniques and methods of evaluation and planning transcend the boundaries of specific fields and that relevant contributions to these areas come from people representing many different positions, intellectual traditions and interests. In order to further the development of evaluation and planning, we publish articles from the private and public sectors in a wide range of areas: organizational development, planning, human resource development, public health, mental health, social service, public action, mental retardation, corrections, substance abuse and education. The primary goals of the journal are to assist evaluators and planners to better the practice of their professions, to develop their skills and to improve their knowledge base.

## A Selection of Papers

The utilization of simple measures in mental health program evaluation, **J L LEBOW** & **F L NEWMAN**.

Simple measures of case mix in mental health services, **F L NEWMAN** & **M P McGOVERN**.

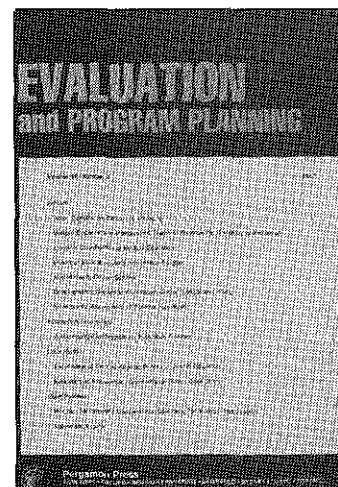
Cost per unit of service, **W N ZELMAN**.

A guide to the use of simple process measures, **M E SMITH**.

Managing mental health organizations with 25 key performance indicators, **J E SORENSEN**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Soc Sci Cit Ind, Psychol Abstr, PsycINFO, Social Abstr, Adolescent Mental Health Abstr, ERIC/CIJE*



**Subscription Information**  
1988: Volume 11 (4 issues)  
ISSN: 0140-7190 (502)



# INTERNATIONAL JOURNAL OF INTERCULTURAL RELATIONS

Official Publication of SIETAR: The Society for Intercultural Education, Training and Research

Editor: **DAN LANDIS**, *Department of Psychology, University of Mississippi, University, MS 38677, USA*

This journal is dedicated to advancing knowledge and understanding of theory, practice, and research in inter- and intra-group relations. The contents encompass theoretical developments, field-based evaluation training techniques, and empirical discussions of cultural similarities and differences.

Papers are selected for their contributions to an understanding of inter-group harmony and reduction of tensions. Issue-oriented, interdisciplinary discussion is encouraged and highest priority is given to papers which join theory, practice and field research design.

## A Selection of Papers

Intergroup contact in small cities, **C RIORDAN** (USA).

Televised portrayals of hispanics: a comparison of ethnic perceptions, **R J FABER** (USA) *et al.*

Problems of intercultural communication in Egyptian-American diplomatic relations, **R COHEN** (Israel).

Behavioral dimensions of intercultural effectiveness: a replication and extension, **M R HAMMER** (USA).

## Training Section

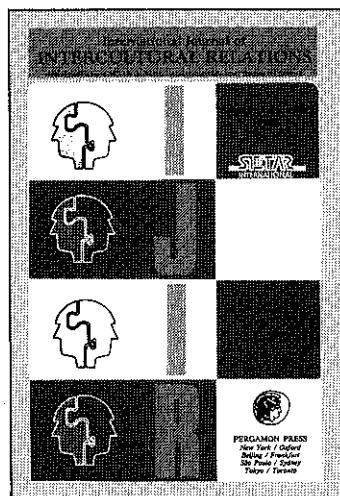
Academia: a cross-cultural problem, **E CHRISTOPHER** (Australia).

Four traditional approaches to developing cross-cultural preparedness in adults: education, training, orientation, and briefing, **L R KOHLS** (USA).

The "learning how to learn" approach to cross-cultural orientation, **G HUGHES-WIENER** (USA).

Roses of social support systems in overseas relocation: implications for intercultural training, **G FONTAINE** (USA).

**Indexed/Abstracted in:** *Current Contents, Psychol Abstr, PsycINFO, IBZ, US Pol Sci Doc, Adolescent Mental Health Abstr, Socio Abstr*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0147-1767 (535)

# INTERNATIONAL JOURNAL OF LAW AND PSYCHIATRY

Editor: **DAVID N WEISSTUB**, *Professor of Law and Psychiatry, International Academy of Law and Mental Health, 3419 rue Simpson, Montreal, Quebec, H3G 2J6, Canada*

This journal provides a multi-disciplinary forum for the exchange of ideas and information among professionals concerned with the interface of law and psychiatry. There is a growing awareness of the need for exploring the fundamental goals of both the legal and psychiatric systems and the social implications of their interaction. The journal seeks to enhance understanding and cooperation in the field through the varied approaches represented, not only by law and psychiatry, but also by the social sciences and related disciplines.

## A Selection of Papers

Competency to stand trial in juvenile court, **T GRISSE** *et al.*

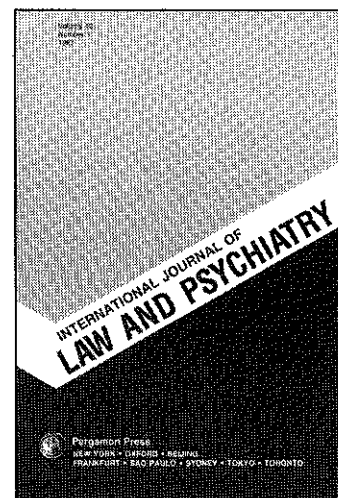
The implications of the Canadian charter of rights and freedoms for the law relating to guardianship and trusteeship, **R M GORDON & S N VERDUN-JONES**.

HMOs and psychiatry: could there be a silver lining, **G MENDELSON**.

Serious juvenile offenders: demographic variables, diagnostic problems, and therapeutic possibilities, **P KRAMP** *et al.*

Antisocial backgrounds of defendants evaluated for insanity: a research note, **R ROGERS & R ZIMBARG**.

**Indexed/Abstracted in:** *Abstracts on Criminology and Penology, Adolescent Mental Health Abstracts, ASCA, Biological Abstracts, Community Mental Health Review, Contents of Current Legal Periodicals, Criminology and Penology Abstracts, Current Contents/Social & Behavioral Sciences, Current Law Index, Excerpta Medica, Human Sexuality Update, Legal Contents, Legal Resource Index, Medicolegal News, Mental Health Abstracts, Police Science Abstracts, Psychological Abstracts, Referativnyi Zhurnal, Selected List of Table of Contents of Psychiatric Periodicals, SNI Bulletin, Social Science Citation Index, Socio Abstrs*



**Subscription Information**  
1988: Volume 11 (4 issues)  
ISSN: 0160-2527 (295)

## FOOD AND CHEMICAL TOXICOLOGY

An International Journal published for the British Industrial Biological Research Association

Editors-in-Chief: **ROBERT A NEAL**, *Chemical Industrial Institute of Toxicology, PO Box 12137, Research Triangle Park, NC 27709, USA* and **GORDON C HARD**, *BIBRA, Woodmansterne Road, Carshalton, Surrey SM5 4DS, UK*

*Food and Chemical Toxicology* publishes original research reports and occasional interpretative reviews on the toxic effects, in animals or humans, of natural or synthetic chemicals occurring in the human environment. In addition to studies relating to food, water and other consumer products, papers on industrial and agricultural chemicals and pharmaceuticals are encouraged. The studies may address the physiological, biochemical or pathological changes induced by specific substances, techniques for assessing potential toxicity, or the mechanisms underlying toxic phenomena. All aspects of *in vivo* toxicology are covered, including systemic effects on specific organ systems, carcinogenesis and teratogenesis. Papers reporting the toxicological examination of specific chemicals or consumer products are published irrespective of the positive or negative nature of the results, provided the tests and reporting meet current standards of adequacy. The journal's editorial policy reflects the need for high-quality science in support of health and safety decisions.

### A Selection of Papers

Intestinal permeability changes in rodents: a possible mechanism for degraded carrageenan-induced colitis,

**T DELAHUNTY** (USA) *et al.*

Effects of pretreatment with SKF-525A or sodium phenobarbital on thiabendazole-induced teratogenicity in ICR mice,

**A OGATA** (Japan) *et al.*

Effects of administering caffeine to pregnant rats either as a single daily dose or as divided doses four times a day,

**S E SMITH** (UK) *et al.*

Inhibitory effect of cheese and some food constituents on mutagenicity generated in *Vicia faba* after treatment with nitrite,

**W M F JONGEN** (The Netherlands) *et al.*

Mutagenicity of human urine after the consumption of fried salted salmon,

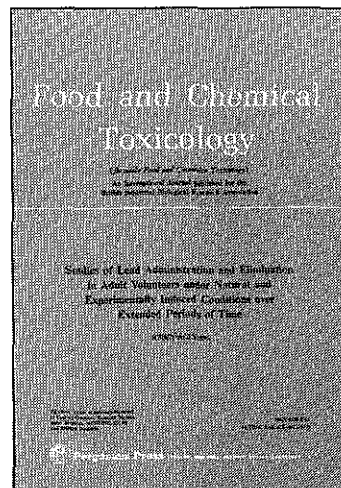
**S OHYAMA** (Japan) *et al.*

Comparison of acute toxicities of deoxynivalenol (vomitoxin) and 15-acetyldeoxynivalenol in the B6C3F<sub>1</sub> mouse,

**J H FORSELL** (USA) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), BIOSIS Database, AGRICOLA.*



**Subscription Information**  
1988: Volume 26 (12 issues)  
0950-4230 (1988)

## FORENSIC ENGINEERING

The International Journal

**Structures, Foundations, Materials, Construction, Machinery and Policy**

Editor-in-Chief: **BRUCE A SUPRENANT**, *Department of Civil Engineering and Mechanics, University of South Florida, Tampa, FL 33620, USA*

Co-Editors: **ROBERT E GARRETT**, *President, Garrett Engineers Inc, 2804 Beverly Boulevard, Los Angeles, CA 90057, USA*, **H P ROSSMANITH**, *Institute of Mechanics, Technical University of Vienna, A-1040 Vienna, Austria* and **ANDREW SCANLON**, *Department of Civil Engineering, The Pennsylvania State University, 212 Sackett Building, University Park, PA 16802, USA*

*Forensic Engineering*, a new international, quarterly publication, will provide an avenue of public documentation by publishing material on the evaluation, analysis, investigation, presentation and history of structural failures. Failure is defined as the nonperformance, omission or condition of not achieving the desired result. Therefore, the objective of this journal is to disseminate failure information to the professional community, thus providing the opportunity to learn from failures.

Technical subject topics include but are not limited to, all types of structures, foundations, machinery, soil mechanics, geology, mining and materials. The failure investigation process, conducting and evaluating condition surveys, construction practices, quality control, load testing, expert witness testimony, insurance, legal counsel and human error in failure are also important aspects of forensic engineering.

### A Selection of Papers

The overlooked business aspect of forensic engineering,

**R E GARRETT** (USA).

Excessive slab deflections - a serviceability failure,

**A SCANLON** (USA).

Integration of human errors in models of structural risk evaluation,

**D M FRANGOPOL** (USA).

Are you an expert?,

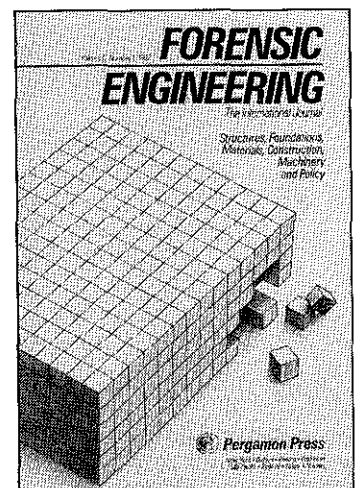
**A W KNOTT** (USA).

The National Academy of Forensic Engineers,

**M M SPECTER** (USA).

Place of forensics in mediation,

**H MURRAY HOHNS** (USA).



**Subscription Information**  
1987/88: Volume 1 (4 issues)  
ISSN: 0888-8817 (807)

# INTERNATIONAL JOURNAL OF MICROGRAPHICS & VIDEO TECHNOLOGY

Including All Aspects of Electronic  
Information Transfer

Acting Editor: **ELLEN M MEYER**, 27 Hubbardton Road,  
Wayne, NJ 07470, USA

Video Editor: **GERARD O WALTER**, Integration Automation  
Inc., 1301 Harbor Bay Parkway, Alameda, CA 94501, USA

The *International Journal of Micrographics & Video Technology* is concerned with reporting the interrelated advances in electronic information transfer and micropublishing, electronic journals, photographic and video, including exploitation of databases by these means. Attention is given to the research, development and implementation of integrated systems in academic, government and commercial organisations and micropublishing.

## A Selection of Papers

The *PaperLess Chase* - an innovative adventure in the microform and electronic publishing marketplace, **N BARBER** (USA).

Microforms at Clarkson University,  
**C SIEMATKOWSKI** (USA).

Future of microforms and their use at Utah State University,  
Merrill Library, **K MURPHEY** (USA) &  
**R B SCHOCKMEL** (USA).

The future of microforms, and the use of microforms in the library  
of Stoke Court research department, **P LINDSEY** (UK).

The future of microforms and their use in the library,  
**J H TEN HAKEN** (The Netherlands).

The future of microforms and their use in Oesterle Library, North  
Central College, **B WOLFE** (USA).

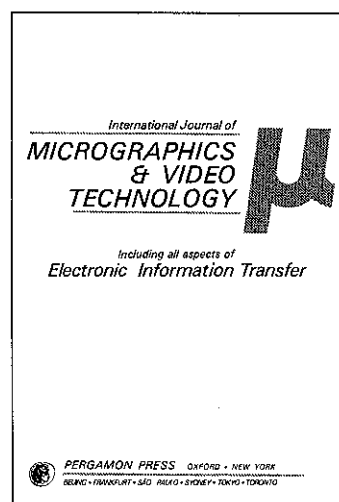
Impact of new technology on the information professional,  
**C OPPENHEIM** (UK).

New formats for old encyclopedias: an essay, **E GRAY** (USA).

The future of the public library. From Plato to AMIGOS,  
**E GRAY** (USA).

New Patents and Software Survey sections are included in this  
journal.

**Indexed/Abstracted in:** *Chemical Abstracts, Computer Contents,  
Information Science Abstracts, Library and Information Science  
Abstracts, ASLIB, ANBAR, INSPEC*



## Subscription Information

1988: Volume 6 (4 issues)  
ISSN: 0743-9636 (597)

# INTERNATIONAL JOURNAL OF MULTIPHASE FLOW

Editor: **G HETSRONI**, Department of Nuclear and Chemical  
Engineering, University of California, Santa Barbara,  
CA 93106, USA

The *International Journal of Multiphase Flow* publishes  
theoretical and experimental investigations of multiphase flow  
which are of relevance and permanent interest.

Topics regularly covered include fluid mechanics, rheology and  
the interdisciplinary aspects of mechanical and chemical  
engineering involved in the study of flow phenomena.

The journal's coverage encompasses brief communications  
including reports of current investigations, discussions of previous  
publications, announcements and review articles.

## A Selection of Papers

Non-Newtonian liquid-air stratified flow through horizontal  
tubes - II, **A A BISHOP** (USA) & **S D DESHPANDE** (USA).  
Numerical treatment of the steady flow of a liquid compound jet,  
**S RADEV** (Bulgaria) & **P GOSPODINOV** (Bulgaria).

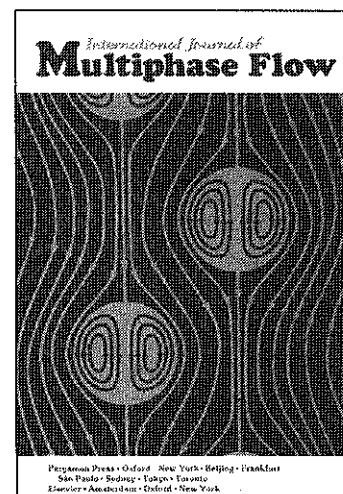
Electromagnetic flowmeter sensitivity with two-phase flow,  
**D G WYATT** (UK).

Modelling of annular dispersed two-phase flow in vertical pipes,  
**R V A OLIEMANS** (The Netherlands) *et al.*

Transition from annular flow and from dispersed bubble flow -  
unified models for the whole range of pipe inclinations,  
**D BARNEA** (Israel).

New Patents and Software Survey sections are included in this  
journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts,  
Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS  
Database, Petroleum Abstracts*



## Subscription Information

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Orders to Pergamon please.

# GEOCHIMICA ET COSMOCHIMICA ACTA

Journal of the Geochemical Society and the Meteoritical Society

Executive Editor: **DENIS M SHAW**, *Department of Geology, McMaster University, Hamilton, Ontario, L8S 4M1, Canada*

*Geochimica et Cosmochimica Acta* is the official journal of the Geochemical and the Meteoritical Societies. It is devoted to the publication of original research papers in geochemistry and cosmochemistry and acts as a link between chemistry, geology, physics and astronomy. Subjects covered include meteorites, geochronology, marine geochemistry, organic geochemistry and general geochemistry, and comments on papers are published, together with the authors' replies. Articles in French and German are accepted for publication, provided that they are accompanied by an abstract in English. In addition, the journal publishes book reviews and information on forthcoming meetings. Groups of papers on particular subjects are published from time to time by arrangement with the editor.

## A Selection of Papers

Sector zoning in calcite cement crystals: implications for trace element distributions in carbonates, **R J REEDER** (USA) & **J C GRAMS** (USA).

Possible carotenoid-derived structures in fossil kerogens, **T MACHIHARA** (Japan) & **R ISHIWATARI** (Japan).

Plagioclase-rich inclusions in carbonaceous chondrite meteorites: liquid condensates?, **D A WARK** (USA).

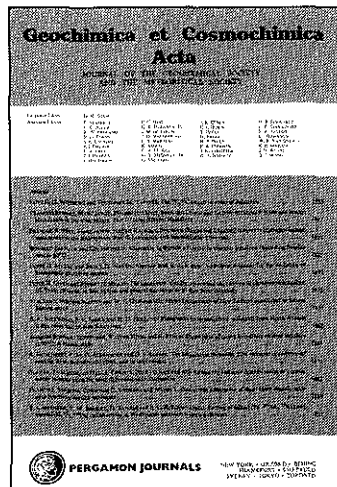
Solid/solution interaction: the effect of carbonate alkalinity on adsorbed thorium, **B D LAFLAMME** (USA) & **J W MURRAY** (USA).

An equation for the heat capacity of solids, **Y FEI** (USA) & **S K SAXENA** (USA).

Amino acid adsorption by clay minerals in distilled water, **J I HEDGES** (USA) & **P E HARE** (USA).

Volatile degassing of basaltic achondrite parent bodies: evidence from alkali elements and phosphorus, **D W MITTFELDELDT** (USA).

**Indexed/Abstracted in:** *Current Contents, BIOSIS Database, INSPEC, Energy Res Abstracts, Energy Data Base, Int Aerospace Abstracts, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 52 (12 issues)  
ISSN: 0016-7633 (print)  
ISSN: 0950-2688 (online)



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# INTERNATIONAL JOURNAL OF PLASTICITY

Editor-in-Chief: **AKHTAR S KHAN**, *School of Aerospace Mechanical and Nuclear Engineering, The University of Oklahoma, 865 Asp Avenue, Room 212, Norman, OK 73019, USA*  
Co-Editors: **JAMES F BELL**, *Department of Mechanics, Johns Hopkins University, Latrobe Hall, Baltimore, MD 21218, USA* and **NICOLAE CRISTESCU**, *Department of Mechanics, University of Bucharest, Str. Academiei, 14, Bucharest 70109, Romania*

The *International Journal of Plasticity* reports original research on all aspects of plastic deformation of isotropic as well as anisotropic solids, including the thermodynamics of plasticity and fracture, continuum theory, and macroscopic as well as microscopic phenomena. The topics of interest include plastic behavior of single crystals and polycrystalline metals, ceramics, rocks and soils, composites and polymers, as well as plasticity aspects of failure and fracture mechanics. Significant experimental, numerical and theoretical contributions advancing the understanding of plastic behavior of solids are most welcome, together with studies relating microscopic to macroscopic behavior of solids.

The journal will contain research papers, review articles, research notes, letters to the editor, and announcements of conferences and symposia.

## A Selection of Papers

Theoretical study of acoustoelastic effects caused by plastic anisotropy growth, **M KOBAYASHI** (Japan).

Residual stresses in cyclically loaded two-phase solid, **O W DILLON Jr** (USA) & **J W OSBORNE** (USA).

Analysis of nonisothermal tensile tests using measured temperature distributions, **K S RAGHAVAN** (USA) & **R H WAGONER** (USA).

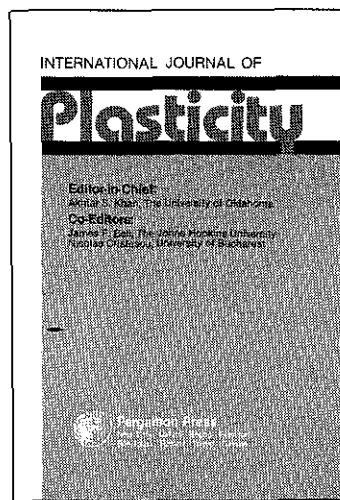
Dynamic elasto-plastic buckling of initially curved bars, **K FUKATSU** (Japan) & **M ODA** (Japan).

Compaction equations for strain hardening porous materials, **K T KIM** (Korea) & **M M CARROLL** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, International Aerospace Abstracts, Applied Mech Rev, Mechanics, Science Citation Index*

## Subscription Information

1988: Volume 4 (4 issues)  
ISSN: 0749-6419 (762)



# INTERNATIONAL JOURNAL OF RADIATION APPLICATIONS AND INSTRUMENTATION

The journal publishes original research in the broad field of radiation applications and instrumentation. Contributions take the form of original papers, technical notes, reviews on specialist topics, short communications, conference announcements, book reviews and summaries of conference proceedings.

The *International Journal of Radiation Applications and Instrumentation* is produced in five separate parts and subscribers can purchase each part separately or take out a combined subscription to all five.

**Part A: Applied Radiation and Isotopes** (Including Data, Instrumentation and Methods for use in Agriculture, Industry and Medicine) - publishes papers describing methods, techniques and instrumentation relating to the production, measurement and application of radionuclides and radiation in any branch of science and technology. (See also page 17).

**Part B: Nuclear Medicine and Biology** - publishes papers describing the *in vitro* or *in vivo* use of radioactive substances as radiotracers, radiopharmaceuticals or therapeutic agents or any application of nuclear radiation to medicine. (See also page 131).

**Part C: Radiation Physics and Chemistry** - publishes scientific papers dealing with the interaction of ionizing radiation with matter, the resultant physical and chemical changes and the mechanisms involved. (See also page 159).

**Part D: Nuclear Tracks and Radiation Measurements** (Including Thermoluminescence) - publishes latest developments in the field of radiation measurements, with pre-eminence given to nuclear tracks, thermoluminescence and related phenomena. (See also page 132).

**Part E: Nuclear Geophysics** (A Journal of Nuclear Techniques in the Earth and Environmental Sciences, Minerals Exploration, Mining and Process Control) - aims to bring together the common science and technologies which are to be found in studies of the earth's crust, the hydrosphere and the atmosphere with the purpose of predicting earthquakes, climatic changes and pollution transfer. (See also page 131).

## Subscription Information

1988: 42 issues  
(783)

# GOVERNMENT PUBLICATIONS REVIEW

An International Journal of Issues and Information Resources

Editor: **STEVEN D ZINK**, *University of Nevada Libraries, Reno, NV 89557, USA*

*Government Publications Review* provides a forum for the publication of articles that provide insight into the history, current practice, national policies and new developments in the production, distribution, processing and use of information in all formats and at all levels of government. The last issue of each year (Number 6), which is devoted to notable documents of the year, is designed as a selection tool and an alerting service for libraries and institutions interested in identifying and obtaining significant new official publications at all levels of government and in all countries.

## A Selection of Papers

Technical report demand at a research university,  
**T W CONKLING & L R GRUBER.**

Government publications in the People's Republic of China,  
**T Y YEH.**

The impact of the reduction in federal government statistical publications and services on state government statistical agencies, **W C ROBINSON & A A STONE.**

Information policy in an era of illiteracy: the U.S. pension bureau before the civil war, **J W OBERLY.**

The availability and use of international documentation in Yugoslav libraries, **Z BARSIC.**

Are the Armenians really Russians? - Or how the U.S. census bureau classifies America's ethnic groups, **P R MAGOCSI.**

Loading the GPO tapes - What does it really mean?  
**C C JAMISON.**

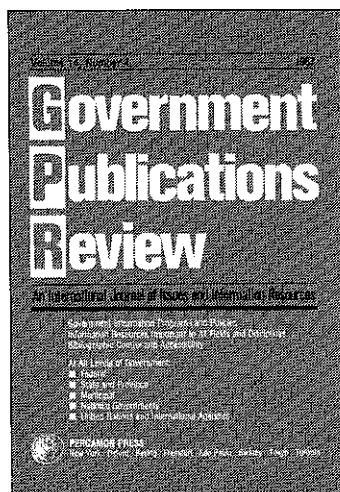
Automating search and retrieval of patents in the U.S. patent and trademark office, **B THIEME & H SMITH.**

Undergraduate use of government documents in the social sciences, **C W NOLAN.**

Distributing the ERIC database on compact disc: a case history of private sector involvement in the distribution of public sector data, **T BRANDHORST.**

Missing links: family history and the documents collection,  
**S L FALES & M A MONAHAN.**

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Soc Sci Cit Ind, Lib Lit, LISA, Historical Abstr, America: History and Life, Info Sci Abstr, Info Hotline, PAIS Bulletin*



**Subscription Information**  
1988: Volume 15 (6 issues)  
ISSN: 0277-9390 (382)

# HABITAT INTERNATIONAL

A Journal for the Study of Human Settlements Established at the UN Habitat Conference, Vancouver 1976

Editors: **O H KOENIGSBERGER** and **S GROAK**, *University College, London, UK* and **B BERNSTEIN**, *London, UK* Editorial address: *15 The Mount Square, London NW3 6SX, UK*

*Habitat International* publishes original research, review articles and case studies concerned with all aspects of human settlements, and monitors the implementation of the Recommendations for National Action adopted at the UN Habitat Conference, Vancouver 1976.

The journal's themes include: national settlement policies and development; social and economic aspects of human settlements; planning and management of human settlements; design and construction of shelter; infrastructure and services for human settlements and the relationships of human settlements with the natural environment.

## A Selection of Papers

Future directions in housing policies, **J F C TURNER (UK).**

Third World housing policies since the 1950's

**O KOENIGSBERGER (UK).**

The devolution of housing production: support and management,  
**P I WAKELY (UK).**

Community development support programmes for housing projects - a problem-solving approach, **M SLINGSBY (India).**

The training needs of a support approach to housing,

**B MUMTAZ (UK).**

Evolution of a support policy of shelter - the experience of Sri Lanka, **D WEERAPANA (Sri Lanka).**

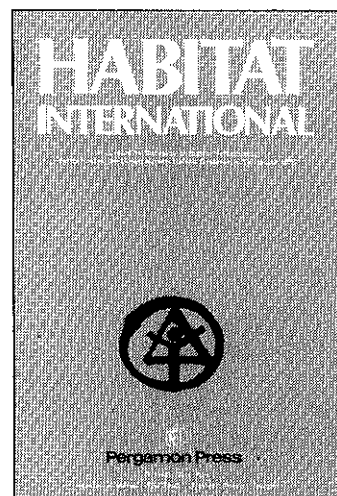
Reflections on the implementation of the million houses programme, **S SIRIVARDANA (Sri Lanka).**

Training and information for institutional development for the implementation of the million houses programme of Sri Lanka,

**L LANKATILLEKE (Sri Lanka).**

Training and education: inventing a programme and getting it to work, **N HAMDI (USA).**

Traditional vs modern behaviour in a housing development project, **M T MUNARRIZ (Japan).**



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0197-3975 (479)

# INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES

Editor-in-Chief: **CHARLES STEELE**, *Department of Applied Mechanics, School of Engineering, Stanford University, Stanford, CA 94305, USA*

Consulting Editor and Editor-in-Chief 1965-1985:

**GEORGE HERRMANN**, *School of Engineering, Stanford University, Stanford, CA 94305, USA*

The *International Journal of Solids and Structures* has as its objective the publication and dissemination of original research in mechanics of solids and structures as a field of applied science and engineering. It fosters the exchange of ideas among workers in different parts of the world and also among workers who emphasize different aspects of the foundations and applications of the field.

The field of mechanics of solids and structures is experiencing considerable growth as a result of recent technological advances. The journal, by providing an international medium of communication, is encouraging this growth by encompassing all aspects of the field from the more classical problems of structural analysis to mechanics of solids continually interacting with other media, and including fracture, flow, wave propagation, heat transfer, thermal effects in solids, optimum design methods, model analysis, structural topology and numerical techniques. Interest extends to both inorganic and organic solids and structures.

## A Selection of Papers

Elastic interaction of a crack with a microcrack array - I. Formulation of the problem and general form of the solution, **A CHUDNOVSKY** (USA) *et al.*

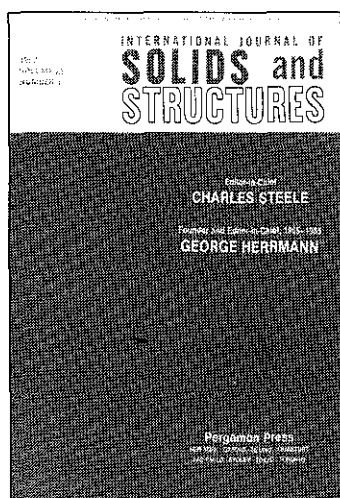
Elastic interaction of a crack with a microcrack array - II. Elastic solution for two crack configurations (piecewise constant and linear approximations), **A CHUDNOVSKY** (USA) *et al.*

Vibration and buckling of rectangular plates with nonuniform elastic constraints in rotation, **T MIZUSAWA** (Japan).

Endochronic plasticity: some basic properties of plastic flow and failure, **H MURAKAMI** (USA) & **H E READ** (USA).

Dynamic response of axially constrained plastic beams to blast loads, **R VAZIRI** (Canada) *et al.*

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



## Subscription Information

1988: Volume 24 (12 issues)  
ISSN: 0020-7683 (297)

# INTERNATIONAL PACKAGING ABSTRACTS

The complete technical information service for the packaging industry

Editor: **K BROWN**, *PIRA, The Research Association for the Paper and Board, Printing and Packaging Industries, Randalls Road, Leatherhead, Surrey KT22 7RU, UK*

The monthly journal *International Packaging Abstracts* contains summaries (abstracts) of publications and documents issued throughout the world relating to all aspects of packaging including commercial information. Each issue contains nearly 350 references prepared by PIRA's own information scientists from international sources, among them 300 journals which regularly publish articles on packaging, including plastics, food and pharmaceutical journals. References are also taken from standards and specifications, market reports, technical reports, directions, books, government publications and the national press.

*International Packaging Abstracts* has expanded its coverage to include up-to-date information on new products, new processes, new equipment, new materials, company developments, statistics and market research. *International Packaging Abstracts* is accessible in a number of other ways: advance abstracts service, selective dissemination of information services, bibliographic search services, and magnetic tape leasing.

*International Packaging Abstracts* is also available online via Pergamon ORBIT InfoLine.

## Areas Covered

Packaging in general, including markets, design and environmental issues.

Materials.

Components.

Retail Unit Packages.

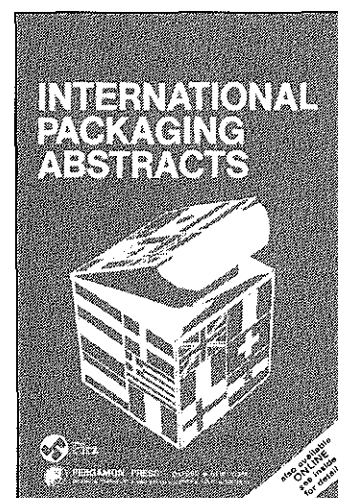
Transit Packs.

Packaging for Specific Products.

Packaging Operations and Machinery.

Distribution

Index.



## Subscription Information

1988: Volume 8 (12 issues)

ISSN: 0739-2907 (685)

*International Packaging Abstracts* - available online via Pergamon ORBIT InfoLine.

# HISTORY OF EUROPEAN IDEAS

The Official Journal of the International Society for the Study of European Ideas. Sponsored by the European Cultural Foundation.

Editor: **EZRA TALMOR**

Associate Editor: **SASCHA TALMOR**, *Department of Philosophy, Haifa University, Mount Carmel, Haifa 31999, Israel*

*History of European Ideas* is a multidisciplinary journal, established by a group of international scholars to study the history of the cultural exchange between European nations, the influence of this exchange on the formation of European ideas and the emergence of the idea of Europe.

It publishes papers in the following fields: European Studies, Philosophy, Literature, Politics, Economics, History of Religion, European History, Sociology, Linguistics, History of Science, Education, Military History and Law.

Each issue contains at least four main articles along with sections devoted to book reviews and announcing symposia, colloquia, conferences and congresses.

## A Selection of Papers

Orpheus: myths for the moderns, **J LANE** (UK).

Aristotle as authority: alternative Aristotelian sources of late mediaeval political theory, **C J NEDERMAN** (New Zealand).  
Education, gender and social change in Victorian liberal feminist theory, **J SENDERS PEDERSEN**.

La Rochefoucauld and the social bases of aristocratic ethics, **H C CLARK** (USA).

The ideals and origins of the Franco-German, sister cities movement, 1945-70, **E S CAMPBELL** (USA).

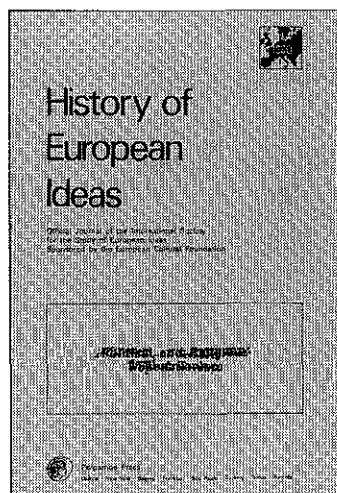
Science et histoire, **J-R ARMOGATHE** (France).

*Idées and mentalités*; the case of the Catholic Reform movement in France, **R BRIGGS** (UK).

Berkeley's semantic revolution: 19 November 1707-11 January 1708, **D BERMAN** (Ireland).

Early French socialism reconsidered - II. Social science, rhetoric and historical progress, **P E CORCORAN** (Australia).

**Indexed/Abstracted in:** *Current Contents, Historical Abstracts, MLA International Bibliography, Sociological Abstracts and The Philosopher's Index.*



**Subscription Information**  
1988: Volume 9 (6 issues)  
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# HOLOCAUST AND GENOCIDE STUDIES

An International Journal

Published in association with the United States Holocaust Memorial Council and Yad Vashem, The Holocaust Martyrs' and Heroes' Remembrance Authority, Jerusalem, Israel.

Editor-in-Chief: **YEHUDA BAUER**, *Institute of Contemporary Jewry, The Hebrew University of Jerusalem, Mount Scopus 91905, Jerusalem, Israel*

Associate Editor: **HARRY JAMES CARGAS**, *Webster University, St Louis, MO 63119, USA*

Chairman of the Editorial Board: **ELIE WIESEL**

The aim of *Holocaust and Genocide Studies* is to publish the foremost scholarly material reflecting the best in contemporary thought on the Holocaust and the related study of genocide. The journal will contain original material, research and review articles.

By its publication policy, the journal will resolutely endeavour to combat genocidal practices and maximise human rights worldwide.

*Holocaust and Genocide Studies* welcomes the submission of suitable articles for editorial consideration and rapid publication. Manuscripts should be sent to the Editor-in-Chief.

## A Selection of Papers

*Kommandostab Reichsführer-SS*: Himmler's personal murder brigades in 1941, **Y BÜCHLER** (Israel).

Photographing behind the Warsaw Ghetto Wall, 1941  
**J J HEYDECKER** (USA).

Concerning authentic and unauthentic responses to the Holocaust,  
**E L FACKENHEIM** (Israel).

The role of Turkish physicians in the World War I genocide of Ottoman Armenians, **V N DADRIAN** (USA).

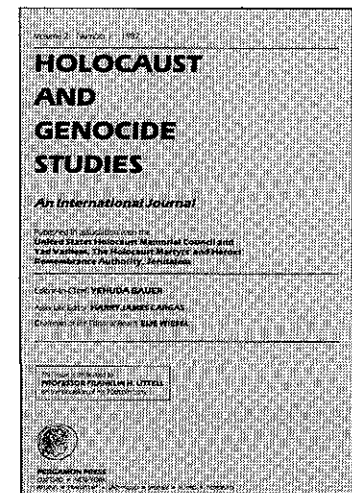
Post-Holocaust theology: A journey out of the Kingdom of the Night, **A L ECKARDT** (USA).

Secular theodicy and historical evidence, **D SIDORSKY** (USA).

Normalizing the Holocaust? The recent historians' debate in the Federal Republic of Germany, **N KAMPE** (FRG).

Holocaust and genocide: the essential dialectic,  
**F H LITTELL** (USA).

**Indexed/Abstracted in:** *Current Contents, Int Bibl Period Lit and Int Bibl Book Reviews*



**Subscription Information**  
1988: Volume 3 (4 issues)  
ISSN: 8756-6583 (567)



# JOURNAL OF AFRICAN EARTH SCIENCES

(and the Middle East)

Editor-in-Chief: **CORNELIUS A KOGBE**, *Rock View International, Tour Onyx, 10 rue Vandrezanne, 75644 Paris Cedex 13, France*

Editorial Board: **Z R EL NAGGAR**, *University of Petroleum & Minerals, Department of Earth Sciences, PO Box 144, Dhahran 31261, Saudi Arabia*, **RICHARD REYMENT**, *University of Uppsala, Paleontologiska Inst., Postadress Box 558, S-751 22 Uppsala, Sweden* and **JOHN J W ROGERS**, *Department of Geology, University of North Carolina at Chapel Hill, NC 27514, USA*

The *Journal of African Earth Sciences* is an international interdisciplinary journal devoted to all aspects of research related to the African continent and neighbouring regions. Papers incorporating the results of research on regional geology of the African cratons and mobile belts, economic geology, geophysics, structure, Quaternary geology and analysis of sedimentary basins are featured.

In addition the journal includes book reviews, short notes and selected papers from the proceedings of conferences, symposia and workshops on any aspect of African geology and related subjects.

## A Selection of Papers

Paleozoic oolitic ironstones of the Algerian Sahara: a review, **S GUERRAK** (France).

Resédimentations d'âge sénonien dans le Rif central (Maroc): conséquences sur les divisions paléogéographiques et structurales de la chaîne, **L ASEBRIY** (Morocco) *et al.*

Tectonometamorphic evolution of the gneissic Kidal assemblage related to the Pan-African thrust tectonics (Adrar des Iforas, Mali), **M CHAMPENOIS** (France) *et al.*

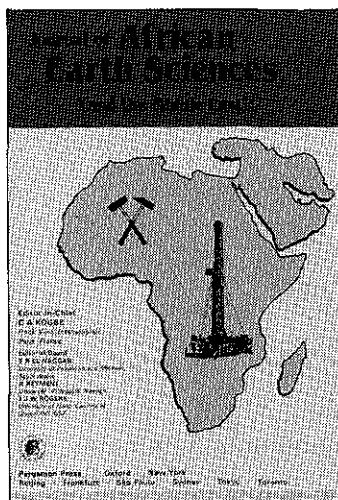
Discrimination of geological features using digital and photographic enhancements of Landsat multispectral scanner data, **H EL SHAZLY** (USA).

Chemical composition of some Senonian bivalvian shells and its significance in paleoecological studies, in the area of Abu Roash, Egypt, **A A ABDEL** (Egypt) *et al.*

Hydrogeology of Lagos metropolis, **E O LONGE** (Nigeria) *et al.*

A Software Survey section is included in this journal

**Indexed/Abstracted in:** *Cambridge Sci Abstracts, Current Contents*



**Subscription Information**  
1988: Volumes 7 & 8  
(8 issues)  
ISSN: 0731-7247 (691)

# JOURNAL OF ANXIETY DISORDERS

Editors-in-Chief: **CYNTHIA G LAST** and **MICHEL HERSEN**, *University of Pittsburgh School of Medicine, Western Psychiatric Institute and Clinic, 3811 O'Hara Street, Pittsburgh, PA 15213, USA*

The *Journal of Anxiety Disorders* is an interdisciplinary journal that publishes research papers dealing with all aspects of anxiety disorders for all age groups (child, adolescent, adult and geriatric). Areas of focus include: traditional, behavioral, cognitive and biological assessment; diagnosis and classification; psychosocial and psychopharmacological treatment; genetics; epidemiology and prevention. Theoretical and review articles will be considered for publication if they contribute substantially to current knowledge in the field. The journal also contains sections for case reports (single-case studies and preliminary but innovative clinical reports) and book reviews on all aspects of anxiety disorders.

## A Selection of Papers

Sensitivity to stress-relevant stimuli in post-traumatic stress disorder, **R J McNALLY** *et al.*

The anxiety sensitivity index: construct validity and factor analytic structure, **R A PETERSON** & **R L HEILBRONNER**.

A comparison of DSM-III personality disorders in acutely ill panic and depressed patients, **J H REICH** & **R NOYES Jr.**  
Effects of cue-controlled relaxation on the control of heterosocial performance anxiety among shy males, **D R BELLES** *et al.*

The relationships among panic, fear and avoidance, **M G CRASKE** *et al.*

Is agoraphobia a variant of panic disorder or a separate illness? **R NOYES Jr** *et al.*

Cognitive aspects of panic disorders, **R OTTAVIANI** & **A T BECK**.

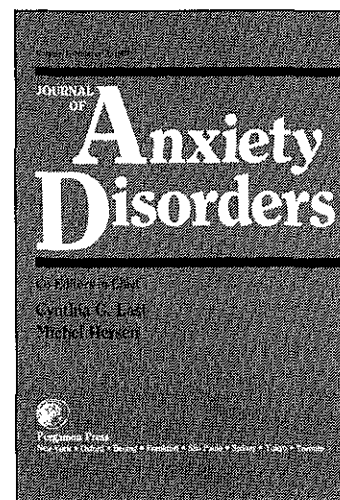
Anxiety disorders and alcoholism: a study with inpatient alcoholics, **D L CHAMBLESS** *et al.*

Panic attack symptoms in patients with chest pain and angiographically normal coronary arteries, **V MUKERJI** *et al.*

Frequent and infrequent panic: a comparison of cognitive and autonomic reactivity, **J GAYLE BECK** & **S K SCOTT**.

Phobic anxiety and panic anxiety: how do they differ?, **B A THYER** & **J HIMLE**.

A Software Survey section is included in this journal.



**Subscription Information**  
1988: Volume 3 (4 issues)  
ISSN: 0887-6185 (801)

# INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER

Co-ordinating Editors: **J P HARTNETT** and **W J MINKOWYCZ**, *University of Illinois at Chicago, PO Box 4348, Chicago, Illinois 60680, USA*

This is the companion publication to the *International Journal of Heat and Mass Transfer*. The journal serves as a world forum for the rapid dissemination of new ideas, innovative measurement techniques and preliminary findings of current investigations, discussions and criticisms in the field of heat and mass transfer. An outstanding feature of the journal is the rapid presentation of contributions.

## A Selection of Papers

An optical technique for the *in-situ* measurement of species concentration in double diffusive convection,

**M KAZMIERCZAK** (USA) & **D POULIKAKOS** (USA).

Laminar film condensation of downward flowing vapour on a horizontal elliptic cylinder - a numerical solution,

**P K PANDAY** (France).

The role of interfacial mobility in determining the interfacial shear factor in two-phase wavy film flow, **D M MARON** (Israel) &

**N BRAUNER** (Israel).

Finite element solution for laminar flow and heat transfer past a short circular cylinder, **KING-LEUNG WONG** (China) & **CHA'O-KUANG CHEN** (China).

A new generalised correlation for predicting swirl flow pressure drops in a horizontal refrigerant-12 evaporator,

**K N AGRAWAL** (India) *et al.*

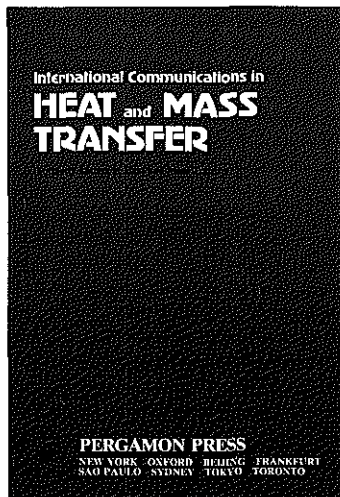
Numerical model for the determination of the effective thermal conductivity of composite materials, **G GUIFFANT** (France) & **P FLAUD** (France).

Thermal osmosis near a buried heat source,

**C L CARNAHAN** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, Energy Res Abstracts, Energy Data Base, Int Aerospace Abstracts, INSPEC*

**Subscription Information**  
1988: Volume 15 (6 issues)  
ISSN: 0735-1933 (208)  
Combined subscription is available with *International Journal of Heat and Mass Transfer*.



## New Features

# INTERNATIONAL JOURNAL FOR PARASITOLOGY

Sponsored by the Australian Society for Parasitology

Editor-in-Chief: **J F A SPRENT**, *Department of Parasitology, University of Queensland, St Lucia, Brisbane 4067, Australia*

The *International Journal for Parasitology* serves as a medium for communication of scientific contributions in the field of parasitology at an international level. It publishes original research papers dealing with parasites, parasitism and parasitic infection.

Volume 18 will see the publication of eight regular issues and the introduction of several new features: Research Notes, Book Reviews, Invited Review articles and Clinical Communications (both medical and veterinary).

Other established items, such as the calendar of forthcoming meetings and listing of parasitological societies, will continue.

## A Selection of Papers

Immunization of sheep against infection with larvae of the blowfly *Lucilia cuprina*, **V M BOWLES** (Australia) *et al.*

A scanning electron microscope study of *L. cuprina* larvae and the development of blowfly strike in sheep,

**R M SANDEMAN** (Australia) *et al.*

*In vitro* selection of drug resistant *Schistosoma mansoni*,

**G C COLES** (USA) & **J I BRUCE** (USA).

*In vitro* study on humoral encapsulation of microfilariae: establishment of technique and description of reaction,

**C C CHEN** (UK) & **B R LAURENCE** (UK).

*In vitro* study on humoral encapsulation of microfilariae: effects of diethyldithiocarbamate on the reaction, **C C CHEN** (UK) &

**B R LAURENCE** (UK).

Immunological damage to *Hymenolepis diminuta* following a challenge infection in C57 mice, **M D McCAIGUE** (UK) &

**D W HALTON** (UK).

The biosynthesis of uridine 5'-monophosphate in *Giardia lamblia*, **G F VITTI**, (Australia) *et al.*

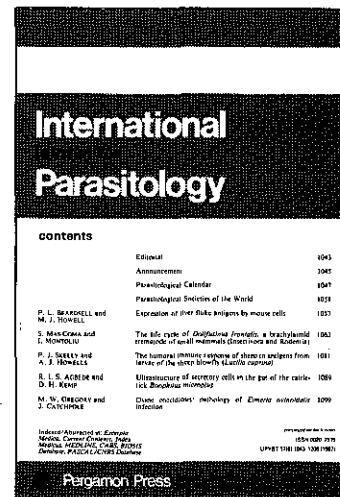
Ultrastructural studies on the plasmodium of *Myxidium giardi* (*Myxosporea*) and its attachment to the epithelium of the urinary bladder, **I PAPERNA** (South Africa) *et al.*

The formation of glandular secretion in larval *Austramphilina elongata* (*Amphilinidea*), **K ROHDE** (Australia).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*

**Subscription Information**  
1988: Volume 18 (8 issues)  
ISSN: 0020-7519 (353)



# JOURNAL OF ATMOSPHERIC AND TERRESTRIAL PHYSICS

Editor-in-Chief: Sir GRANVILLE BEYNON FRS, *Department of Physics, University College of Wales, Aberystwyth, SY23 3BZ, UK*

The *Journal of Atmospheric and Terrestrial Physics* provides an international forum for the publication of papers dealing with the characteristics of the Earth's atmosphere at all heights and the results obtained - all over the world - by those who investigate atmospheric and terrestrial physics.

Topics covered include: the low atmosphere, thunderstorm electricity and the electric field near the earth; the high atmosphere, problems of the magnetosphere, the ionosphere and aeronomy; aurora, geomagnetism, airglow and radiowave propagation; electron density distributions and variations; electromagnetic radiation and gravity waves. The *Journal of Atmospheric and Terrestrial Physics* also publishes from time to time commissioned review articles from individuals and collections of review papers presented at symposia.

## A Selection of Papers

Solar cycle and long-period variations of mesospheric temperatures, **G VON COSSART (GDR) & J TAUBENHEIM (GDR)**.

Experimental observations of very low latitude man-made whistler-mode signals, **N R THOMSON (New Zealand)**.

Estimates of mesospheric water vapour based on *D*-region ion composition data, **B S N PRASAD (India) & J TAUBENHEIM (GDR)**.

Experimental estimates of electron density variations at the reflection height of VLF signals, **O I PINTADO (Argentina) et al.**

Inorganic bromine in the lower stratosphere, **C C GALLAGHER (USA)**.

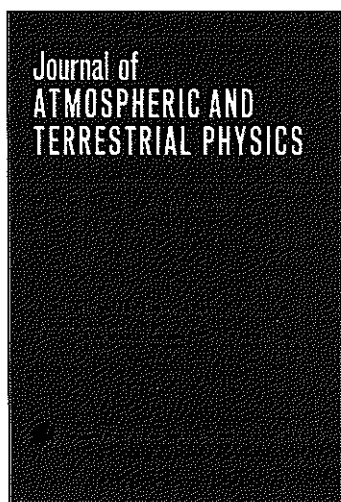
Short period fluctuations of the horizontal wind measured in the upper middle atmosphere and possible relationships to internal gravity waves, **A EBEL (FRG) et al.**

Response of 'atmospheric' lightning to systematic changes in the global electric field, **C L BHAT (UK) et al.**

Short period fluctuations of the horizontal wind measured in the upper middle atmosphere and possible relationships to internal gravity waves, **A EBEL (FRG) et al.**

Middle atmosphere electrodynamic modification by particle precipitation at the South Atlantic Magnetic Anomaly, **W D GONZALEZ (Brazil)**.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, INSPEC*



**Subscription Information**  
1988: Volume 50 (12 issues)  
ISSN: 0021-9169 (211)

# THERAPY AND EXPERIMENTAL PSYCHIATRY

An Interdisciplinary Journal

Editors-in-Chief: **JOSEPH WOLPE**, *Temple University Medical School and Medical College of Pennsylvania/EPPI, Philadelphia, PA 19129, USA* and **LEO J REYNA**, *Department of Psychology, Nova University, Ft Lauderdale, FL 33314, USA*

The *Journal of Behavior Therapy and Experimental Psychiatry* is one of the leading international journals in behavior therapy. It is the only journal that has a special concern for the practice of behavior therapy in clinical psychiatry. In addition to original papers, the journal publishes material intended to provide training in behavior therapy for psychiatrists. It publishes case reports, and from time to time transcriptions of interviews to illustrate how target behaviors are identified and methods selected, how difficulties are handled and progress evaluated. Thus it includes descriptions of therapeutic methods, with technical details sometimes not found in textbooks.

The research articles include descriptions of new procedures, analyses of theory of behavior disorders and of behavior change in general, and accounts of experimental studies relating to change in neurotic, psychotic and psychopathic behavior. Because of the didactic emphasis of the journal, articles will sometimes be followed by reviewers' comments. As the official organ of the Behavior Therapy and Research Society, the journal will publish announcements of the Society's meetings as well as the Roster of Clinical Fellows in the Society.

## A Selection of Papers

Anxiety sensitivity in agoraphobics, **R J McNALLY & M LORENZ**.

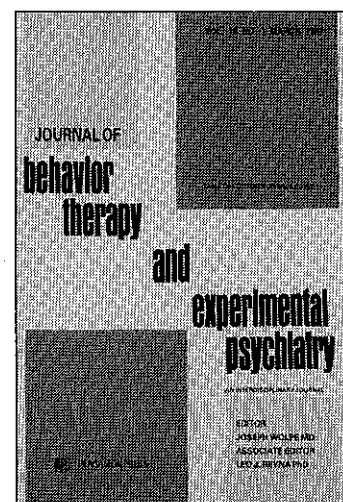
A reconsideration of the Willoughby personality schedule with psychiatric inpatients, **W T MERKEL & R L WIENER**.

Pulmonary carbon dioxide and panic-arousing sensations after 35% carbon dioxide inhalation: hypercapnia/hyperoxia versus hypercapnia/normoxia, **M A VAN DEN HOUT et al.**

Analysis of demand conditions associated with stereotypy, **F C MACE et al.**

Self-efficacy and the control of anxious cognitions, **G KENT & R GIBBONS**.

**Indexed/Abstracted in:** *Biological Abstracts, Index Medicus, Excerpta Medica, Psychological Abstracts, Accumulative Index to Nursing & Life Health Literature, The Psychological Reader's Guide*



**Subscription Information**  
1988: Volume 19 (4 issues)  
ISSN: 0005-7916 (339)

# INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE

The Official Journal of the International Society for  
Developmental Neuroscience

Editors-in-Chief: **J R PEREZ-POLO**, *Division of Biochemistry, Gail Borden Building, Room 436, UTMB, Galveston, TX 77550, USA* and **A VERNADAKIS**, *Department of Psychiatry and Pharmacology, University of Colorado, 4200 East 9th Avenue, Denver, CO 80260, USA*

The *International Journal of Developmental Neuroscience* provides an interdisciplinary forum for the discussion of current issues in developmental neurobiology. The journal will publish the results of original research on both basic and clinical aspects of the developing nervous system, ranging from simpler nervous systems in invertebrates and *in vitro* growth of neural cells to regenerative processes under experimental and clinical conditions. Papers concerned with both *in vitro* and *in vivo* studies are invited for editorial consideration. The editorial board is international in membership and is composed of experts in many different areas of neuroscience.

## A Selection of Papers

Astroglial development in microencephalic rat brain after fetal methylazoxymethanol treatment,

**M ERIKSDOTTER-NILSSON** *et al.*

Development of taurine biosynthesizing system in cerebral cortical neurons in primary culture, **S OHKUMA** *et al.*

Polyamines affect growth of cultured rat cerebellar neurons in different sera, **G M GILAD & V H GILAD**.

Regional and cellular differences in rat brain protein synthesis *in vivo* and in slices during development, **F M SHAHBAZIAN** *et al.*

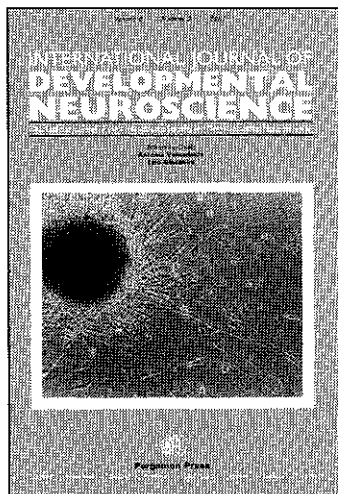
Oligodendrocyte production and myelin recovery in heterozygous jimpy mice: an autoradiographic study, **J ROSENFELD & V L FRIEDRICH Jr.**

Nerve growth factor in medium conditioned by embryonic chicken heart cells, **G NORRGREN & T EBENDAL**.

Effects of neonatal undernutrition of rats on the synthesis of phosphatidylcholine and phosphatidylethanolamine by microsomes from gray matter and white matter, **T S REDDY & L A HORROCKS**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Excerpta Medica, Current Contents, Psychol Abs, Psych INFO, Cambridge Sci Abs, BIOSIS Database, Int Biblio Period Lit, Bibl Book Reviews*



## Subscription Information

1988: Volume 6 (6 issues)

ISSN: 0736-5748 (712)

# INTERNATIONAL JOURNAL OF EDUCATIONAL DEVELOPMENT

Executive Editor: **PHILIP H TAYLOR**, *University of Birmingham, Birmingham B15 2TT, UK*

The primary function of the journal is to report on key developments in national systems of education wherever they are to be found. *International Journal of Educational Development* therefore makes invaluable reading for the educationist and decision-maker at every level and everywhere.

In particular the journal focuses on issues of interest to planners, practitioners and researchers in Third World countries.

Topics covered include: new structures of schooling and higher education; curriculum change and innovation; new approaches to educational management; programmes of research, enquiry and analysis; studies of achievement and student participation rates; initiatives in vocational and technical education.

## A Selection of Papers

The evaluation of selection tests for educational upgrading programmes in Botswana and Swaziland,

**W M M ALTINK** (The Netherlands).

The maintenance of mysticism and ego-centricity: constraints on teacher effectiveness in higher education in developing countries,

**D BOORER** (Papua New Guinea) &

**R PRESTON** (Papua New Guinea).

Language and schooling in Morocco, **J SALMI** (Morocco).

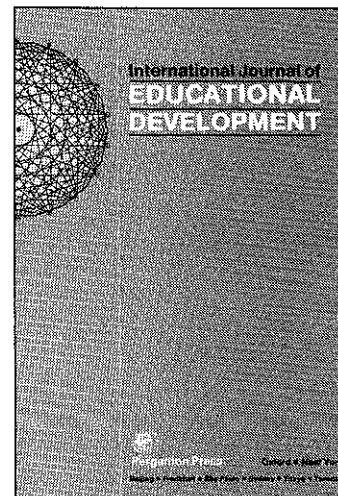
Education for village life? What has happened to Grade ten leavers from the five SSCEP high schools?,

**S WEEKS** (Papua New Guinea).

Assessment and the "vocational school fallacy" in Papua New Guinea, **G VULLIAMY** (UK).

Public versus private schools in developing countries: evidence from Colombia and Tanzania, **G PSACHAROPOULOS** (USA).

Review article: The methodology of qualitative research, **P HURST** (UK).



## Subscription Information

1988: Volume 8 (4 issues)

ISSN: 0738-0593 (719)

# JOURNAL OF CHEMICAL INDUSTRY AND ENGINEERING (CHINA)

Edited by: Editorial Board of Journal of Chemical Industry and Engineering (China)

The *Journal of Chemical Industry and Engineering (China)* features achievements in areas of chemical industries and engineering in China with a view to promoting scientific and technical interchange between China and the rest of the world.

Topics covered by the journal include: Chemical Engineering • Thermodynamics • Reaction Engineering • Systems Engineering • Process Transfer Engineering • Chemical Technology • Biochemical Engineering • Environmental Engineering •

Papers are published on the basis of their relevance to theoretical research, practical application or potential use in the chemical process industry.

The journal is the official publication of the Chemical Industry and Engineering Society of China and is published twice a year. The English edition commenced publication in 1986.

## A Selection of Papers

Two-phase flow and heat transfer in vertical U-shaped tubes (I) Flow pattern transitions in the bend,

**CHEN TINGKUAN** (China) *et al.*

Vapor-liquid and liquid-liquid equilibria of the system of 4-methyl-2-pentanol and water,

**SHAN ZHENGJUN** (China) *et al.*

Axial mixing of continuous phase in a rotating-disc extraction column (RDC), **LU LIZHU** (China) *et al.*

Kinetic modelling of hydroisomerization of C<sub>9</sub>-aromatics (I) Modelling and estimation of relative rate constants by the Wei-Prater method, **WU DENGXI** (China) &

**LIN ZHENGXIAN** (C S LIN) (China).

An approximatic mathematical model for design of industrial crystallizers with elutriators, **QIAN RUYING** (China) &

**CHEN ZUDE** (China).

Thermal stability of adiabatic continuous-flow stirred tank reactor (CSTR) under stationary state,

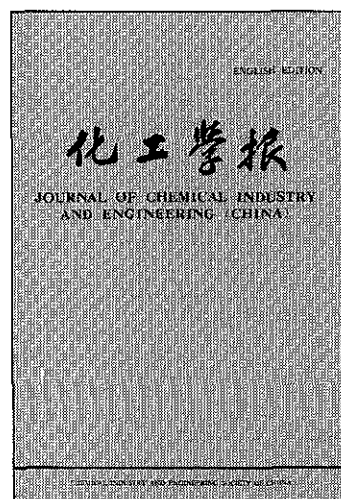
**FENG CHANGGEN** (China).

Fischer-Tropsch synthesis over Fe/Ti alloys,

**A NOBILE Jr** (USA) *et al.*

A mass transfer model for liquid surfactant membranes, **GU ZHONGMAO** (China) *et al.*

Vapor-liquid equilibria for salt-containing systems by equation of state - measurement and correlation of vapor pressures for salt solution with single solvent, **LI BOGEN** (China) *et al.*



**Subscription Information**  
1988: Volume 2 (2 issues)  
ISSN: 0892-0370 (823)  
English Edition -  
Distributed by Pergamon Press

# JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY & ALLIED DISCIPLINES

Official Organ of the Association for Child Psychology and Psychiatry

Joint Editors: **MICHAEL BERGER**, *Department of Clinical Psychology, Lanesborough Wing, St George's Hospital, Blackshaw Road, London SW17 0QT, UK* and **ERIC TAYLOR**, *Department of Child and Adolescent Psychiatry, Institute of Psychiatry, De Crespigny Park, Denmark Hill, London SE5 8AF, UK*

The *Journal of Child Psychology & Psychiatry & Allied Disciplines* is primarily concerned with child and adolescent psychology and psychiatry, including experimental and developmental studies and especially developmental psychopathology. An important function of the journal is to bring together interdisciplinary contributions so that more is known about the mental life and behaviour of children.

## A Selection of Papers

A twin study of genetic influences on reading and spelling ability and disability, **J STEVENSON** (UK) *et al.*

The trait and method components of ratings of conduct disorder - II. Factors related to the trait component of conduct disorder scores, **D M FERGUSSON** (New Zealand) &

**L J HORWOOD** (New Zealand).

Patterns of intellectual functioning in non-retarded autistic and schizophrenic children, **R F ASARNOW** (USA) *et al.*

Habit reversal and differential reinforcement of other behaviour in the treatment of thumb-sucking: an analysis of generalization and side-effects, **A P CHRISTENSEN** (Australia) &

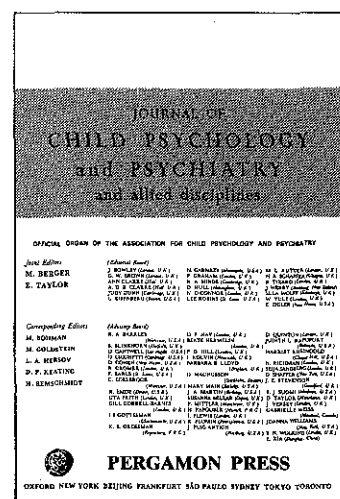
**M R SANDERS** (Australia).

Cognitive abilities and behavioural characteristics of children with idiopathic infantile hypercalcaemia, **O UDWIN** (UK) *et al.*

Medical compliance and coping with cystic fibrosis, **D R CZAJKOWSKI** (USA) & **G P KOOCHEK** (USA).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Excerpta Medica, Index Medicus, MEDLINE, Psychol Abstr, Psych INFO, BIOSIS Database, PASCAL-CNRS Database, BRS Database, ERIC, PycSCAN*



**Subscription Information**  
1988: Volume 29 (6 issues)  
ISSN: 0021-9630 (242)

# INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER

Chairman of the Editorial Advisory Board: **E R G ECKERT**,  
*University of Minnesota, Minneapolis, MN 55455, USA*

This journal, the companion publication to *International Communications in Heat and Mass Transfer*, provides a central vehicle for the exchange of basic ideas in heat and mass transfer between research workers and engineers throughout the world. Particular emphasis is focused on original research, both analytical and experimental and highest priority is given to those contributions which increase the basic understanding of transfer processes and of their application to engineering problems. Topics covered include: new methods of measuring and/or correlating transport-property data, energy engineering and environmental applications of heat and/or mass transfer.

## A Selection of Papers

Heat and mass transfer bibliography - Soviet works,  
**R I SOLOUKHIN (USSR) & O G MARTYENKO (USSR)**.  
Heat transfer in turbulent fluids - I. Pipe flow,  
**V YAKHOT (USA) et al.**

A Second Law analysis of the optimum design and operation of thermal energy storage systems, **R J KRANE (USA)**.

An asymptotic approach to compressible boundary-layer flow,  
**H HERWIG (FRG)**.

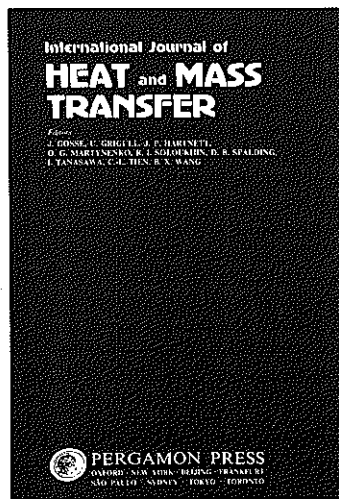
Thermogravitational and thermocapillary convection heat transfer in concentric and eccentric horizontal, cylindrical annuli filled with two immiscible fluids, **U PROJAHN (FRG) & H BEER (FRG)**.

Effect of channel geometry on critical heat flux for low pressure water, **K MISHIMA (Japan) & H NISHIHARA (Japan)**.

The theory of advanced multi-layer thin film heat transfer gauges,  
**J E DOOLEY (UK) & M L G OLDFIELD (UK)**.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*

**Subscription Information**  
1988: Volume 31 (12 issues)  
ISSN: 0017-9310 (210)  
Combined subscription  
available with *International Communications in Heat and Mass Transfer*



# INTERNATIONAL JOURNAL OF HOSPITALITY MANAGEMENT

Published with the support of the International Association of Hotel Management Schools

Editor-in-Chief: **JOHN O'CONNOR**, *Head of the Department of Catering Management, Oxford Polytechnic, Oxford OX3 0BP, UK*

The *International Journal of Hospitality Management* discusses major trends and developments in hospitality management, planning, training and research in many countries, covering topics such as: human resource management; consumer behaviour and marketing; business forecasting and applied economics; operational management; financial management; planning and design; information processing; education and training; technological developments and national and international legislation.

Each issue contains a mixture of research papers, state-of-the-art reviews and analyses of business practice within the industry.

## A Selection of Papers

Decision modeling using simulation: a hospitality perspective,  
**W P ANDREW (USA) et al.**

Developing behaviorally-anchored scales for evaluating job performance of hotel managers, **W T UMBREIT (USA)**.

Job satisfaction and its relationship to demographics and turnover of hotel food-service workers in Hong Kong,  
**C MOK (Hong Kong) & D FINLEY (USA)**.

The growth of a hospitality library, **J FULLER (UK)**.

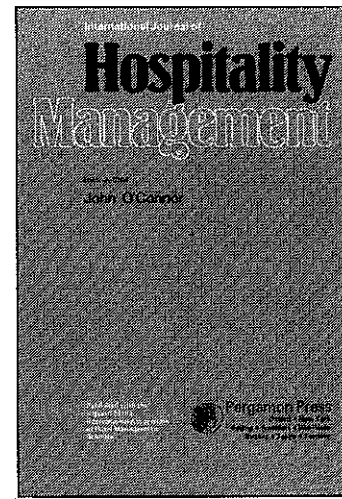
What are unit managers supposed to do? A contingent methodology for investigating managerial role requirements,  
**C HALES (UK) & M NIGHTINGALE (UK)**.

Utilizing live entertainment in hotels, restaurants and clubs,  
**G A PARKER (USA) & W E KENT (USA)**.

A review of personnel management in the private sector of the British hospitality industry, **M J BOELLA (UK)**.

A Software Survey section is included in this journal.

**Subscription Information**  
1988: Volume 7 (4 issues)  
ISSN: 0278-4319 (659)



# THE JOURNAL OF EMERGENCY MEDICINE

Editor: **PETER ROSEN MD**, *Denver General Hospital, 777  
Bannock Street, Denver, CO 80204-4507, USA*

The *Journal of Emergency Medicine* regularly features authoritative, timely articles pertinent to the practicing emergency physician. Published bi-monthly, *JEM* has earned a reputation for excellence in the field by offering in-depth reports on topics such as trauma, pediatric emergencies, pre-hospital care, and disaster management and information on new clinical techniques. The journal increased its format in 1988, providing more coverage of the field.

## A Selection of Papers

High-pressure injection injury: a hand-threatening emergency, **A KARLBAUER & F GASPERSCHITZ**.

Electrical shock in pregnancy: a case report, **T H STRONG Jr, et al.**

Alcoholic ketoacidosis - a review, **K DUFFENS & J A MARX**.  
Emergency applications of intraosseous infusion,

**R M McNAMARA et al.**

Hydroxycobalamin/sodium thiosulfite as a cyanide antidote, **A H HALL & B H RUMACK**.

Cardiac dysrhythmias in the acute setting: recognition and treatment or anyone can treat cardiac dysrhythmias,

**A H HARKEN et al.**

Case report: Brown-Sequard's syndrome associated with histiocytic lymphoma, **T R DRAKE et al.**

Dentistry in the emergency department, **D E GIBSON & A A VERONO**.

Defining a rational back-up policy for emergency departments, **R M RATZAN**.

Management of urgent hypertension: a comparison of oral treatment in the emergency department, **M S CATAPANO & J A MARX**.

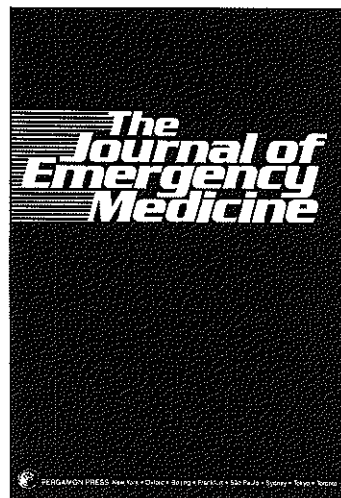
The exploding toilet and other emergency room folklore, **R D SLAY**.

The Bhopal tragedy - what has Swedish disaster medicine planning learned from it? **H G LORIN & P E J KULLING**.

Anaphylaxis: clinical presentation, immunologic mechanisms, and treatment, **M C NETZEL**.

The practice of medicine v the practice of the law, **P ROSEN & M O'CONNOR**.

**Indexed/Abstracted in:** *Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, (CABS), Index Safety Science Abstracts, Emergency Medical Abstracts, BIOSIS Database, International Bibl Period Lit, International Bibl Book Reviews*



**Subscription Information**  
1988: Volume 6 (6 issues)  
ISSN: 0736-4679 (716)

# JOURNAL OF INSECT PHYSIOLOGY

Executive Editors: **LESLIE STRONG** and  
**ROBERT de G WEEVERS**, *Department of Zoology,  
University of Bristol, Bristol BS8 1UG, UK*

The journal publishes original papers, short reviews and proceedings of selected symposia covering a wide variety of aspects of the physiological mechanisms in insects, although closely related topics in other groups of arthropods will be accepted if they are of general interest. Main interests are in the fields of endocrinology, neurobiology, physiological pharmacology, nutrition, homeostasis and reproductive processes of insects. Anatomical papers and papers on new techniques or methods are published only where they contribute to the solution of physiological problems.

## A Selection of Papers

Fat body stimulation of ecdysone synthesis in *Heliothis zea*, **R GRAY (USA) et al.**

Ecdysteroid-titre reduction and developmental arrest of last-instar *Heliothis virescens* larvae by calyx fluid from the parasitoid *Campoletis sonorensis*, **B A DOVER (USA) et al.**

Extrication, the primary event in eclosion, and its relationship to digging, pumping and tanning in *Sarcophagabullata*, **S N M REID (USA) et al.**

Feeding habits of *Ceratitis capitata* (Diptera: Tephritidae): can larvae recognize a nutritionally effective diet?,

**F S ZUCOLOTO (Brazil)**.

Effect of lighting conditions on endocrine events in *Galleria mellonella*, **M I BOGUS (Poland) et al.**

Evidence against an antiaphrodisiac role for *cis*-vaccenyl acetate in *Drosophila melanogaster*, **D SCOTT (USA) & R C RICHMOND (USA)**.

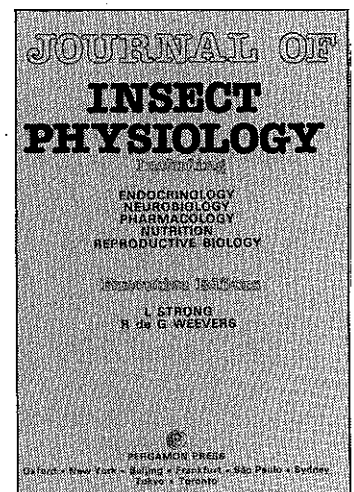
Responses to pure tone stimuli and model songs of ventral cord neurones of *Corixa punctata* 111. (Heteroptera: Corixidae), **A COKL (Yugoslavia) & J THEISS (FRG)**.

Regulation of egg laying and *in vitro* oviductal contractions in *Gryllus bimaculatus*, **M SEFIANI (France)**.

Biological, radiochemical and physicochemical evidence for the low activity of disconnected corpora allata in locust, **F COULLAUD (France) et al.**

Changes in eggshell permeability to oxygen during the early development stages in diapause eggs of *Bombyx mori*, **S-E KIM (Korea)**.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 34 (12 issues)  
ISSN: 0022-1910 (231)  
Combined subscription  
is available with  
*Insect Biochemistry*.

# INTERNATIONAL JOURNAL OF IMPACT ENGINEERING

Editor-in-Chief: **NORMAN JONES**, Department of Mechanical Engineering, University of Liverpool, PO Box 147, Liverpool L69 3BX, UK

The *International Journal of Impact Engineering* publishes original research work concerned with the response of structures and bodies to dynamic loads arising from exposure to blast, collision or other impact events. The topics encompassed by the journal include the elastic and plastic response of structures and bodies to impact and blast loading, terminal ballistics, vehicle crashworthiness, containment and other processes and phenomena in which effects due to impact predominate, such as explosive welding. In addition, related matters such as research into fire hazards in association with impact loads will be included. Every paper accepted must contribute to the understanding of impact phenomena or the insight for engineering design in areas of high rate loading.

### A Selection of Papers

- Transmission and dissipation of stress wave energy at a percussive drill rod joint, **R BECCU** (Sweden) & **B LUNDBERG** (Sweden).  
Behaviour of laminated plates subjected to conventional blast, **V BIRMAN** (USA) & **C W BERT** (USA).  
A dynamic elasto/viscoplastic solution for a thick-walled spherical container subjected to impulsive loading, **T HATA** (Japan).  
Slip and energy dissipation in cylindrical friction joints loaded by impact-induced waves, **E NORDLUND** (Sweden).  
Energy absorption of an initially imperfect strut subjected to an impact load, **R H GRZEBIETA** (Australia) & **N W MURRAY** (Australia).  
The affine similarity of stress pulses in PMMA bars with sharp side notches, **V HUMEN** (Czechoslovakia) *et al.*  
An elementary scaling law for rod impact specimens, **S E JONES** (USA) & **P P GILLIS** (USA).  
Hypervelocity penetration of ceramics, **S J BLESS** (USA) *et al.*  
Hypervelocity impact in metals, glass and composites, **B G COUR-PALAIS** (USA) *et al.*

Indexed/Abstracted in: *Current Contents, Engng Ind Monthly & Author Index*

# INTERNATIONAL JOURNAL OF INSECT MORPHOLOGY & EMBRYOLOGY

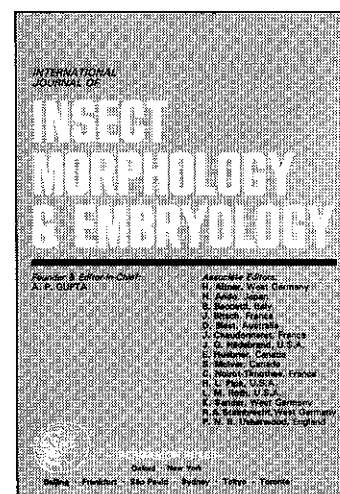
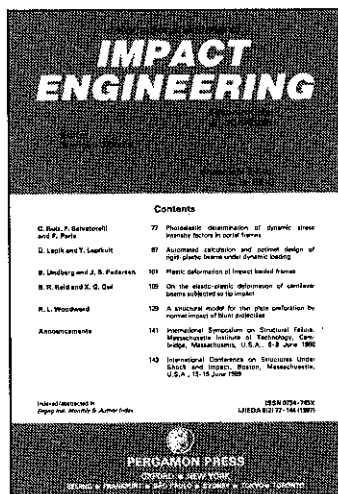
Editor-in-Chief: **AYODHYA P GUPTA**, Department of Entomology and Economic Zoology, Rutgers University, New Brunswick, NJ 08903, USA

The journal will publish original contributions on all aspects of gross morphology, paleomorphology, macro- and microanatomy, ultrastructure, functional and experimental morphology, and embryonic and post-embryonic development, including experimental embryology of insects; and similar studies of other related arthropods, which have direct bearing on our understanding of insect morphology and embryology. In addition, reviews developing new concepts, hypotheses and theories, and a limited number of notes and book reviews will be published.

### A Selection of Papers

- Tubular bodies in dendritic outer segments projecting to second embryonic cuticle from anlagen of contact chemoreceptors in *Locusta migratoria* L. (Orthoptera: Acrididae) and *Periplaneta americana* (L.) (Diptera: Blattellidae), **H ALTNER** (FRG) & **F AMEISMEIER** (FRG).  
Neuroendocrine plexus in the pericardial septum of the stable fly, *Stomoxys calcitrans* (L.) (Diptera: Muscidae), **S MEOLA** (USA) & **B J COOK** (USA).  
Morphology and chemistry of the mandibular gland complex in the primitive termite, *Zootermopsis angusticollis* (Hagen) (Isoptera: Hodotermitidae), **S L GREENBURG** (USA) & **K A PLAVCAN** (USA).  
Ejaculatory duct of the migratory grasshopper, *Melanoplus sanguinipes* (Fabr.) (Orthoptera: Acrididae): a histological and ultrastructural analysis, **C GILLOTT** (Canada) & **I AHMED** (Canada).  
Stridulatory structures in three green lacewings (Neuroptera: Chrysopidae), **S J BROOKS** (UK).  
Variations in location and size of identified flight motoneurons in the silk moth, *Bombyx mori* L. (Lepidoptera: Bombycidae), **H TSUJIMURA** (Japan).  
Head size and shape in relation to grass feeding in Acridoid (Orthoptera), **E A BERNAYS** (USA) & **J HAMAI** (USA).

Indexed/Abstracted in: *Current Contents, Current Awareness in Biological Sciences (CABS), BIOSIS Database*



Subscription Information  
1988: Volume 7 (4 issues)  
ISSN: 0734-743X (700)

Subscription Information  
1988: Volume 17 (6 issues)  
ISSN: 0020-7322 (356)



# JOURNAL OF PRODUCTS LIABILITY

Editors-in-Chief: **VERNE L ROBERTS**, *Institute for Product Safety, 1410 Duke University Road, Durham, NC 27701, USA* and **KENNETH ROSS**, *Husch, Eppenberger, Donahue, Cornfeld and Jenkins, 100 North Broadway, St Louis, MO 63102-2789, USA*

This journal provides the author with an effective means of presenting material to a representative professional audience. It publishes original research papers from the legal as well as from technical fields, such as engineering and medicine, which are appropriate to the growing body of knowledge regarding product safety and liability. Topics range from legal aspects of specified products, product groups, or broad issues in the prosecution or defence of products liability actions, to analyses of accident causation, product failures, and technical sources of appropriate designs to minimize failure or encourage product safety.

## A Selection of Papers

Use of state of the art evidence: confusion, inconsistency, and absolute liability, **K F COX**.

Strict products liability: an overview of state law, **R W BIEMAN**.

Liability for abnormally dangerous activities, **M S MADDEN**.  
The consumer product safety commission's promulgation of a bicycle safety standard, **R D PETTY**.

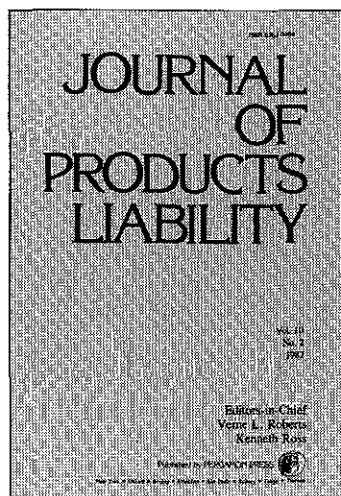
Human factors engineering in accident litigation: a primer for nontechnologists, **D T HARDY**.

A model for analyzing the government contract defense in product liability, **F E ZOLLERS & S N HURD**.

Identifying uses of custom consumer research in products liability, **R H DAVIS**.

DTP: drug manufacturers' liability in vaccine-related injuries, **A B DAVID**.

**Indexed/Abstracted in:** *Index to Periodicals Related to Law, Current Contents/Social & Behavioral Sciences, Current Contents/Engineering, Technology and Applied Sciences, Engineering Index, Consumers Index, Cambridge Scientific Abstracts, Current Law Index, Legal Research Index, Management Contents, and Shepard's Products Liability Citations*



**Subscription Information**  
1988: Volume 11 (4 issues)  
ISSN: 0363-0404 (288)

# JOURNAL OF PSYCHIATRIC RESEARCH

Editors-in-Chief: **MERTON SANDLER**, *University of London, Queen Charlotte's Hospital, Goldhawk Road, London W6 0XG, UK* and **JOSEPH J SCHILDKRAUT**, *Massachusetts General Health Center, 74 Fenwood Road, Boston, MA 02115, USA*

Founded in 1961, the *Journal of Psychiatric Research* offers innovative and timely coverage of four important areas of study: (1) clinical studies of all disciplines relating to psychiatric illness, as well as normal human behavior, including biochemical, physiological, genetic, environmental, social, psychological and epidemiological factors; (2) basic studies pertaining to psychiatry in such fields as neuropsychopharmacology, neurochemistry, neurophysiology, electrophysiology, genetics, psychology, sociology, epidemiology and behavioral medicine; (3) the growing application of clinical laboratory techniques in psychiatry, including the emerging field of psychiatric chemistry; (4) advances in basic and clinical research methodology including the process of "technology transfer" - the application of psychiatric research findings to the clinical practice of psychiatry.

## A Selection of Papers

Vocal activity in verbal hallucinations, **J JUNIGINGER & F P RAUSCHER**.

Changes in urinary catecholamines and their metabolites in depressed patients treated with amitriptyline or imipramine, **C L BOWDEN et al.**

Eye-tracking, attention and amphetamine challenge, **L J SIEVER et al.**

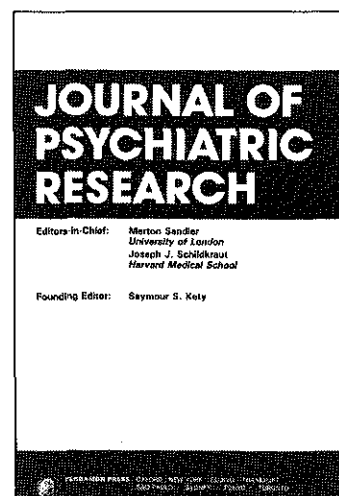
An application of Mokken's model of stochastic, cumulative scaling in psychiatric research, **A DeJONG & I W MOLENAAR**.

Response to total sleep deprivation and clomipramine in endogenous depression, **S ELSENGA & R H VAN DEN HOOFDAKKER**.

Brain marker protein changes after short- and long-term ethanol intoxication and withdrawal in the rat, **L CLEMMESSEN et al.**  
The clinical use of the dexamethasone suppression test in DSM-III affective disorders: correlation with the severe depressive subtypes of melancholia and psychosis, **D L EVANS & C B NEMEROFF**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLINE, MEDLARS, Psychol Abstr. PsycINFO, CABS, BIOSIS Database*



**Subscription Information**  
1988: Volume 22 (4 issues)  
ISSN: 0022-3956 (241)

# INTERNATIONAL JOURNAL OF MACHINE TOOLS & MANUFACTURE

## Design, Research & Application

Editors-in-Chief: **R DAVIES** and **T A DEAN**, *Department of Mechanical Engineering, The University of Birmingham, PO Box 363, Birmingham B15 2TT, UK*

The journal is concerned primarily with design, research and development of machine tools and associated manufacture. Special emphasis is given to industrial relevance and potential. Results and conclusions are presented in a manner which is appreciated by practising engineers as well as by research workers and educationalists.

The journal's scope is broad, blending the development of traditional methods with novel processes and techniques, and encompasses cutting and forming technologies for metals and non-metals in the context of the mechanics of the processes, the design and development of machines, tooling and the development of complete manufacturing systems. Full coverage is given to relevant plasticity, tool wear, tool design, machine design, process development and the economics of production. In addition, papers on machine tool control, novel manufacturing systems, CAD/CAM, materials handling, and computer-integrated manufacture are included.

### A Selection of Papers

Limit charts for high removal rate centreless grinding, **W B ROWE** (UK) *et al.*

Dynamic analysis of machine tool column with damping layer - finite element approach, **S HARANATH** (India) *et al.*

Computer aided design of die block layouts, **S H CHOI** (UK) & **T A DEAN** (UK).

The static and dynamic analysis of machine tools using dynamic matrix reduction technique, **V R REDDY** (Canada) & **A M SHARAN** (Canada).

Prediction of anode profile in ECBD and ECD operations, **V K JAIN** (India) *et al.*

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index*

# INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES

Editor-in-Chief: **S R REID**, *Department of Mechanical Engineering, UMIST, PO Box 88, Sackville St, Manchester M60 1QD, UK*

The *International Journal of Mechanical Sciences* is an international forum for the publication and dissemination of original research work fundamental for research engineers and designers. Papers published contribute to the understanding of the mechanical sciences including structural mechanics and materials processing and failure, and civil engineering sciences; or give insight into engineering practices and processes.

The international character of the journal is reflected in contributions from all parts of the world, although the language of communication is English.

### A Selection of Papers

Analysis of the forming process of sintered powder metals by a rigid-plastic finite-element method, **K MORI** (Japan) & **K OSAKADA** (Japan).

A non-Newtonian plasto-hydrodynamic analysis of dieless wire-drawing process using a stepped bore unit,

**H PARVINMEHR** (UK) *et al.*

Finite-element modelling of deformation and spread in slab rolling, **C LIU** (UK) *et al.*

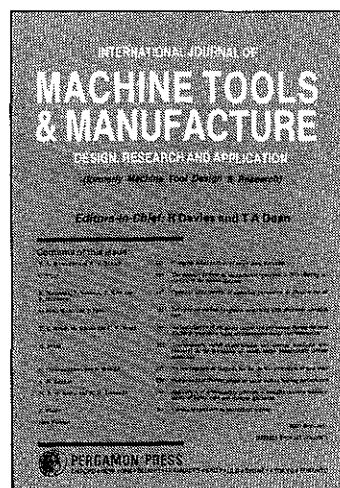
A novel, computationally efficient, approach for Hamilton's Law of Varying Action, **O P AGRAWAL** (USA) & **S SAIGAL** (USA).

Fracturing of paraboloidal-ended perspex rods explosively loaded in air and salt water, **A G MAMALIS** (Greece) *et al.*

An analytical investigation of deformation-induced heating in tensile testing, **Y H KIM** (USA) & **R H WAGONER** (USA).

Bending of a simply supported circular plate subjected to elastic constraint for inclination at its edge, **M HAMADA** (Japan) *et al.*

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 28 (4 issues)  
ISSN: 0020-7179 (264)



**Subscription Information**  
1988: Volume 30 (12 issues)  
ISSN: 0020-7403 (206)

# JOURNAL OF RURAL STUDIES

Editor-in-Chief: **PAUL J CLOKE**, *Department of Geography, Saint David's University College, Lampeter, Dyfed SA48 7ED, Wales, UK*

Assisted by an International and Interdisciplinary Editorial Board

The *Journal of Rural Studies* provides a much needed forum for the publication of research articles relating to such rural issues as society, demography, housing, employment, transport, services, land-use, recreation, agriculture and conservation.

The focus is on those areas encompassing extensive land-use, with small-scale and diffuse settlement patterns and communities linked into the surrounding landscape and milieu. Particular emphasis is given to aspects of planning, policy and management, and the journal is international and interdisciplinary in scope and content.

## A Selection of Papers

The restructuring process and economic centrality in capitalist agriculture, **T MARSDEN** (UK) *et al.*

Promoting economic development amongst rural communities, **M J KEANE** (Ireland) & **M S O CINNEIDE** (Ireland).

The rhetoric and the reality of rural deprivation,

**B P McLAUGHLIN** (UK).

Towards a theory of the American rural residential land market, **A C NELSON** (USA).

River basin planning as a strategy for rural development in Nigeria, **A T SALAU** (USA).

Public service budget constraints: the perspective of rural officials in the USA, **W R LASSEY** (USA) *et al.*

Infrastructure planning in rural Massachusetts,

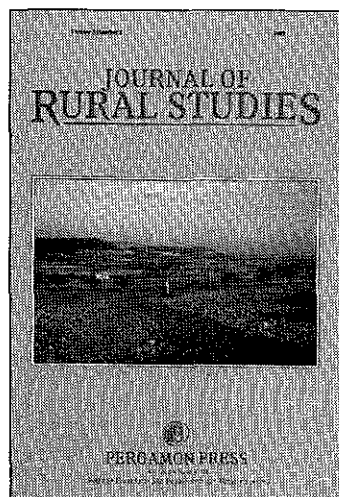
**J H ARMSTRONG** (USA).

Processes of countryside change in lowland England, **C POTTER** (UK).

Problems in implementing farmland preservation policies in Connecticut, **T J RICKARD** (USA).

Social stratification and multiple enterprises: some implications for farming systems research, **P GARRETT** (USA).

**Indexed/Abstracted in:** *Current Contents, Social Sciences Citation Index*



**Subscription Information**  
1988: Volume 4 (4 issues)  
ISSN: 0743-0167 (348)

# JOURNAL OF SAFETY RESEARCH

A Joint Publication of the National Safety Council & Pergamon Press

Editor: **THOMAS W PLANEK**, *National Safety Council, 444 North Michigan Avenue, Chicago, IL 60611, USA*

The *Journal of Safety Research* is an interdisciplinary publication giving the latest ideas and data from research in all areas of safety including traffic, industry, farm, home, school and public. Articles deal with topics such as human error and accidents, methods of accident investigation and analysis, evaluative examination of accident countermeasures and the relation between man-machine environment factors and hazards.

Contributors and readers are professionals in safety, medicine, engineering, law, psychology, government, sociology and education, and the journal encourages discussion of significant research-related matters in the context of social change.

## A Selection of Papers

Safety belt effectiveness in preventing driver fatalities *versus* a number of vehicular, accident, roadway, and environmental factors, **L EVANS** & **M C FRICK**.

Prediction models for psychophysical lifting capabilities and the resulting physiological responses for work shifts of varied duration, **A MITAL**.

The legal minimum drinking age in Texas: effects of an increase from 18 to 19, **A C WAGENAAR** &

**R G MAYBEE**.

The effects of variable-rate cash incentives on safety belt use, **J G COPE** *et al.*

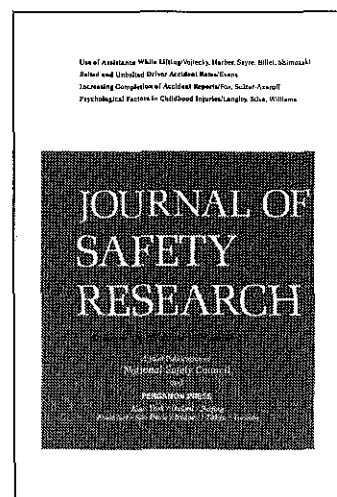
Preventing highway crashes by raising the legal minimum age for drinking: the Michigan experience 6 years later, **A C WAGENAAR**.

License renewal for older drivers: the effects of medical and vision tests, **D M ZAIDEL** & **I HOCHERMAN**.

The effect of raising the legal minimum drinking age on fatal crashes in 10 states, **A HOSKIN** *et al.*

Factors affecting farm safety practices, **S R SCHAFER** & **J W KOTRLIK**.

**Indexed/Abstracted in:** *Current Contents, Highway Safety Literature*



**Subscription Information**  
1988: Volume 19 (4 issues)  
ISSN: 0022-4375 (679)

# INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS

Editor-in-Chief: **WILLIAM A NASH**, *College of Engineering, University of Massachusetts, Amherst, MA 01002, USA*

The *International Journal of Non-Linear Mechanics* provides a specific medium for dissemination of research results in the various areas of theoretical and applied mechanics of solids and fluids as well as control theory where the phenomena are inherently non-linear. Papers may be theoretical, experimental or both. Mathematical treatments of non-linear differential equations wherein solutions and properties of solutions are emphasized will also be treated.

Emphasis in the journal is on contributions, either analytical or experimental, which appear to be of permanent interest to research workers and engineers in the field.

## A Selection of Papers

Simple equations in terms of displacements for finite axisymmetric deflections of shells of revolution, **J MAKOWSKI** (Poland) & **L-P NOLTE** (FRG).

Second sound and internal energy in solids, **A MORRO** (Italy) & **T RUGGERI** (Italy).

Wave features and infinitesimal group analysis for a second order quasilinear equation in conservative form, **A DONATO** (Italy) & **D FUSCO** (Italy).

Bifurcations in a parametrically excited non-linear oscillator, **A K BAJAJ** (USA).

Finite deformation of a circular elastic membrane containing a concentric rigid inclusion, **T E TEZDUYAR** (USA) *et al.*

Mechanical interpretation of the Berger's hypothesis for the global stability of statically loaded shells, **J IVANOVA** (Bulgaria).

Miles' evolution equations for axisymmetric shells: simple strange attractors in structural dynamics, **A MAEWAL** (USA).

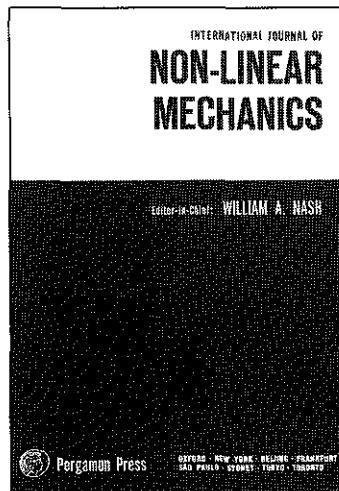
On the non-local aspects of stress in a viscoelastic medium, **J L NOWINSKI** (USA).

Non-linear studies of orthotropic shallow spherical shells on elastic foundation, **Y NATH** (India) & **R K JAIN** (India).

Similarity solutions of three-dimensional boundary layer equations of non-Newtonian fluids, **M G TIMOL** (India) & **N L KALTHIA** (India).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 23 (6 issues)  
ISSN: 0020-7162 (2001)

# INTERNATIONAL JOURNAL OF NURSING STUDIES

Joint Editors: **ROSEMARY CROW**, *University of Surrey, Department of Biochemistry, Division of Nursing Studies, Guildford, Surrey GU2 5XH, UK* and

**The Baroness COX of Queensbury**, *The House of Lords, Westminster, London SW1, UK*

The *International Journal of Nursing Studies* publishes material of interest to an international readership of nurses and others interested in nursing topics. It informs readers about changes and developments in nursing worldwide and so contributes to advances in health care.

The work of nurses inside and outside hospitals is continually changing. The material published may contribute to developments in nursing practice, nurse education and the organization of nursing services.

The journal is not limited to research material. Authors are invited to submit scholarly papers for publication on any nursing subject considered to be of international interest. In particular, the Editors welcome critical reviews of the literature.

## A Selection of Papers

Nurse hours per patient: a method for monitoring and explaining staffing levels, **N G REID** (UK) & **M MELAUGH** (UK).

The quality of life: design and evaluation of a self-assessment instrument for use with cancer patients, **S HOLMES** (UK) & **J DICKERSON** (UK).

Nursing research centers: a survey of their prevalence, functions and school characteristics, **J DIENEMANN** (USA).

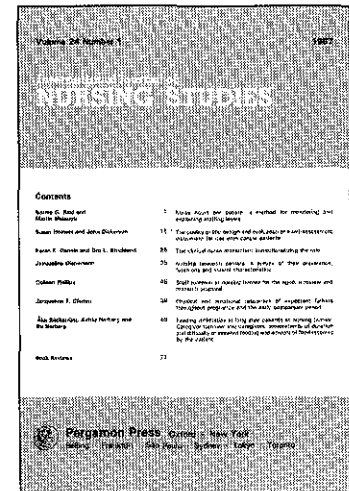
Staff turnover in nursing homes for the aged: a review and research proposal, **C PHILLIPS** (Australia).

Physical and emotional responses of expectant fathers throughout pregnancy and the early postpartum period, **J F CLINTON** (USA).

Feeding difficulties in long-stay patients at nursing homes.

Caregiver turnover and caregivers' assessments of duration and difficulty of assisted feeding and amount of food received by the patient, **A BÄCKSTRÖM** (Sweden) *et al.*

**Indexed/Abstracted in:** *Current Contents, Index Medicus, MEDLINE, Psychol Abs, Psych INFO*



**Subscription Information**  
1988: Volume 25 (4 issues)  
ISSN: 0020-7489 (266)

# JOURNAL OF SOUTH AMERICAN EARTH SCIENCES

(Including Central America, the Caribbean and the Antarctic Peninsula)

Executive Editors: **NORMAN J SNELLING**, *Department of Geology, Oxford Polytechnic, Headington, Oxford OX3 0BP, UK* and **CARLOS E MACELLARI**, *Earth Sciences & Resources Institute, University of South Carolina, Columbia, SC 29208, USA*

The *Journal of South American Earth Sciences* will provide an international medium for the publication of scientific work concerned with all aspects of the earth sciences in the South American continent and the surrounding oceans. Works will also be accepted from the adjacent regions of the Caribbean, Central America and Antarctic Peninsula. Papers must have a regional appeal and should present work of more than local significance. Research papers dealing with the regional geology of South American cratons and mobile belts; economic geology particularly metallogenesis and hydrocarbon genesis; stratigraphy, structure and basin evolution; geophysics and geochemistry; volcanology; tectonics and Quaternary geology will be featured.

New developments in already established regional projects and new initiatives dealing with the geology of the continent will be summarized and presented on a regular basis.

Short notes, discussions, book reviews and conference and workshop reports will also also be included when relevant.

## A Selection of Papers

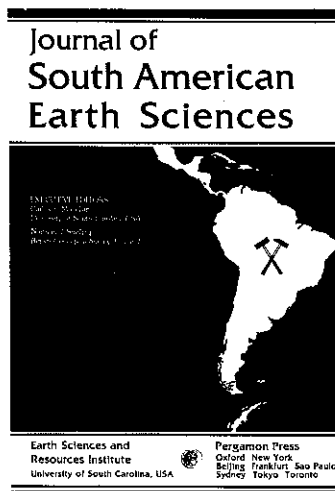
Depositional and diagenetic factors in the generation of the Santiago arenite reservoirs (lower Cretaceous): Aracas oil field, Reconcavo basin, Brazil, **S M COUTO ANJOS** (Brazil) & **A V CAROZZI** (USA).

Structure along the eastern margin of the central cordillera, Upper Magdalena Valley, Colombia, **K BUTLER** (USA) & **S SCHARMEL** (USA).

Epochs of intrusion-related copper mineralization in the Andes, **R H SILLITOE** (UK).

Geochronology of metamorphic and eruptive rocks of south eastern Neuquen and north western Rio Negro provinces, Argentine Republic, **E LINARES** (Argentina) *et al.*

Analysis of late Jurassic-recent paleomagnetic data from active parts plate margins of South America, **M E BECK** (USA).



**Subscription Information**  
1988: Volume 1 (4 issues)  
ISSN: 0895-9811 (839)

# JOURNAL OF SOUTHEAST ASIAN EARTH SCIENCES

Editor-in-Chief: **B K TAN**, *Department of Geology, University of Malaya, 59100 Kuala Lumpur, Malaysia*

Deputy Editor-in-Chief: **T T KHOO**, *Department of Geology, University of Malaya, 59100 Kuala Lumpur, Malaysia*

The *Journal of Southeast Asian Earth Sciences* is an international interdisciplinary journal devoted to all aspects of research related to the earth sciences in South East Asia. Papers featured include the results of research on regional geology, economic geology, geochemistry, petroleum geology, petrology, palaeontology, geophysics, (seismology, magnetics, electrical and gravity), structure, tectonics, geomorphology, engineering geology, Quaternary geology and analysis of sedimentary basins.

While the journal is primarily devoted to research papers, short communications relating to new developments of broad interest, book reviews and technical reports of meetings are also included.

*"This new journal promises well...*

*The balance and variety of topics is excellent.*

*The general high quality of papers and the exceptional interest of the region make this a journal that should be taken by all earth science libraries..."*

Nature, Volume 329, Sept 1987

## A Selection of Papers

Breccias related to explosive volcanism,

**J A WOLFE** (Philippines).

Neo-tectonics of the Strait of Sunda, Indonesia,

**S NISHIMURA** (Japan) *et al.*

The Baling group/Bannang Sata group of the Malay/Thai Peninsula, **C K BURTON** (Indonesia).

Petrochemistry and origin of megacrysts in Upper Cenozoic basalts, Thailand, **S M BARR** (Canada) & **J DOSTAL** (Canada).

Geologic evolution of Western Mindoro Island and the Mindoro Suture Zone, Philippines, **D R SAREWITZ** (USA) & **D E KARIG** (USA).

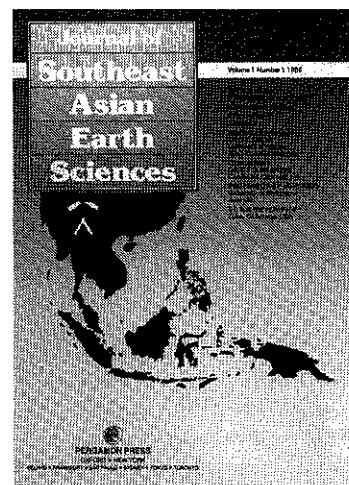
Cenozoic evolution of the Philippine Archipelago,

**A H G MITCHELL** (Philippines) *et al.*

Paleomagnetism of the Khorat Group, Mesozoic, Northeast Thailand, **S MARANATE** (Thailand) &

**P VELLA** (New Zealand).

A geologic and mineral resource assessment of Indonesia, **J P DORIAN** (USA) *et al.*



**Subscription Information**  
1988: Volume 2 (4 issues)  
ISSN: 0743-9547 (235)

# INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY • BIOLOGY • PHYSICS

Editor: **PHILIP RUBIN**, *Division of Radiation Oncology, Strong Memorial Hospital, 601 Elmwood Avenue, Rochester, NY 14642, USA*

The Official Journal of the American Society for Therapeutic, Radiology and Oncology.

Sponsored by the International Society of Radiation Oncology and Circulo de Radioterapeutas Ibero-Latinoamericanos

This journal provides an international forum for the latest work and developments in radiation oncology and it is specifically devoted to defining and chronicling the contribution of the discipline to cancer management and cancer research. The leading publication in its field, the *International Journal of Radiation Oncology • Biology • Physics* publishes original research and review articles, notes on technological innovations and computer applications, letters to the editor and ONCOLIT, a unique self-evaluation in current oncologic literature based on readings in the journal.

## A Selection of Papers

Dosimetric methods in the optimization of radiotherapy for carcinoma of the uterine cervix, **B ESCHE** *et al.*

Combined modality treatment of adult soft tissue sarcomas of the head and neck, **W MCKENNA** *et al.*

The implications of improved treatment of malignant salivary gland tumors by fast neutron radiotherapy, **M CATTERALL & R ERRINGTON**.

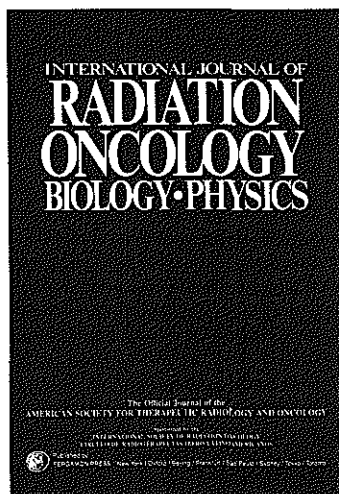
Automated temperature scanning for hyperthermia treatment monitoring, **M ENGLER** *et al.*

Fractionation and dose rate effects in mice: a model for bone marrow transplant in man, **N TARBELL** *et al.*

Improved local control of thoracic disease in small cell lung cancer with higher dose thoracic irradiation and cyclic chemotherapy, **R PAPAC** *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Clinical Medicine, BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Safety Sci Abstr, Energy Res Abstr, Energy Data Base, Toxicology Abstr, Electronics & Commun Abstr, Computer & Info Systems Abstr, Cambridge Sci Abstr, CABS, PASCAL-CNRS Database, Science Citation Index, SCISEARCH Database, ASCA, ISI/Biomed*



## Subscription Information

1988: Volumes 14 & 15

(12 issues)

ISSN: 0360-3016 (223)

# INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES

## & Geomechanics Abstracts

Editor-in-Chief: **JOHN A HUDSON**, *Department of Mineral Resources Engineering, Imperial College of Science and Technology, London SW7 2BP, UK*

This journal publishes original research, new developments and case studies in rock mechanics and rock engineering for mining and civil applications. High quality papers in rock mechanics and the related mining and civil engineering sciences cover areas including fundamental studies of rock behaviour, *in situ* stress, site investigation, analysis and design techniques, rock reinforcement and support, surface structures, surface and underground mining techniques, rapid excavation and tunnel boring machines, underground transportation systems, geothermal energy exploitation, dam engineering and radioactive waste disposal.

The *Geomechanics Abstracts* section also provides comprehensive coverage of papers published elsewhere on soil or rock mechanics, totalling about 2000 references with abstracts each year. *Geomechanics Abstracts* is also available online via Pergamon ORBIT InfoLine.

## A Selection of Papers

A crack tensor and its relation to wave velocity anisotropy in jointed rock masses, **M ODA** (Japan) *et al.*

Fracture toughness of Stripa granite cores, **Z SUN** (Sweden) & **F OUCHTERLONY** (Sweden).

Flow of air with variable density in mine ventilation networks, **J WACLAWIK** (Poland) *et al.*

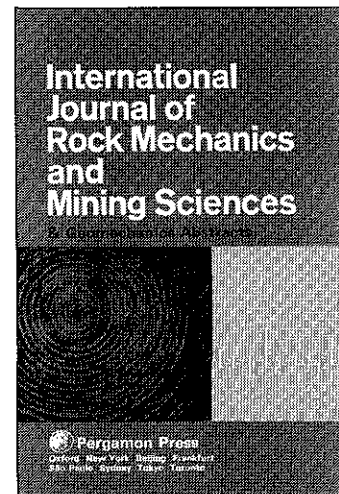
Stochastic evaluation of the two dimensional continuity of fractures in a rock mass, **K WATANABE** (Japan).

Analysis of borehole stresses using pressure-dependent, linear elasticity, **F J SANTARELLI** (UK) *et al.*

Stochastic discrete fracture simulation of groundwater flow into an underground excavation in granite, **A ROULEAU** (Canada) & **J E GALE** (Canada).

A ten year creep experiment on small rock specimens, **H ITO** (Japan) & **S SASAJIMA** (Japan).

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, Geo Abstracts, PASCAL/CNRS Database, INSPEC*



## Subscription Information

1988: Volume 25 (6 issues)

ISSN: 0148-9062 (256)

# JOURNAL OF STRUCTURAL GEOLOGY

Chief Editor: **SUSAN H TREAGUS**, *Department of Geology, University of Manchester, Oxford Road, Manchester M13 9PL, UK*

Associate Editors: **PETER J HUDLESTON**, *Department of Geology and Geophysics, University of Minnesota, MN 55455, USA*, **GAUTAM MITRA**, *Department of Geological Sciences, University of Rochester, Rochester, NY 14627, USA*, **JOHN P PLATT**, *Department of Earth Sciences, Oxford University, Oxford OX1 3PR, UK* and **DAVID J SANDERSON**, *Department of Geology, The Queen's University of Belfast, Belfast BT7 1NN, UK*

This journal publishes original research and review articles in structural geology and tectonics. All features and processes of deformation in rocks are considered, at any scale. Specific topics include natural structures such as folds, fractures and fabrics, structural associations in orogenic belts, strike-slip zones and extensional regimes, strain analysis, and theoretical and experimental modelling. Regional structural accounts should be of broad rather than local interest, or of a thematic nature. There is an express *Brevia* section for short notes, discussion/reply items, book reviews and a diary. The journal publishes occasional thematic or conference special issues.

## A Selection of Papers

Deformation of the Assegaai supracrustals and adjoining granitoids, Transvaal, South Africa,

**C J TALBOT** (Sweden) *et al.*

Suprastructure/infrastructure transition, east-central Cariboo Mountains, British Columbia: geometry, kinematics and tectonic implications, **D C MURPHY** (Canada).

Strain and deformation mechanisms in the Variscan nappes of Vendée, South Brittany, France, **A VAUCHEZ** (France) *et al.*

The Najd fault system revisited; a two-way strike-slip orogen in the Saudi Arabian Shield, **R A AGAR** (Saudi Arabia).

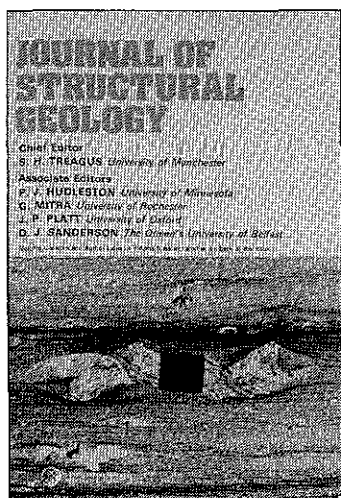
Tectonics of the Thingvellir fissure swarm, SW Iceland, **A GUDMUNDSSON** (Iceland).

Centrifuge modelling of laccolith intrusion, **J M DIXON** (Canada) & **D G SIMPSON** (Canada).

Discontinuous fault zones, **G MANDL** (The Netherlands).

Measure of non-coaxiality, **S K GHOSH** (India).

**Indexed/Abstracted in:** *Current Contents, Cambridge Sci Abstracts, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC Database*



**Subscription Information**  
1988: Volume 10 (8 issues)  
ISSN: 0191-8141 (539)

# JOURNAL OF SUBSTANCE ABUSE TREATMENT

Editors-in-Chief: **JOHN IMHOFF**, *North Shore University Hospital, Manhasset, NY 11030, USA* and **ROBERT HIRSCH**, *North Shore University Hospital, Manhasset, NY 11030, USA*

*Journal of Substance Abuse Treatment* is a quarterly, international, interdisciplinary publication which features original contributions and articles on the clinical treatment of substance abuse and alcoholism. The journal is directed towards treatment practitioners in both the private and public sectors including those involved in health centers, clinics, hospitals, and community agencies. The journal provides for the academic presentation of clinical practice issues that are meaningful to the treatment of drug abuse and addiction, including alcoholism. The editors emphasize that articles submitted for publication should address techniques and treatment approaches directly utilized in the provision of clinical services, with the goal of helping the frontline practitioner to deal more effectively with the patient population. Articles that are essentially theoretical and research-oriented in design and scope will be discouraged. While statistical support information may be presented in support of a paper, this data should be limited and applicable only to the extent it clarifies the author's treatment approach.

## A Selection of Papers

Cocaine dependence treatment on an inpatient detoxification unit, **B WALLACE**.

A blood marker for pharmacodynamic tolerance to alcohol, **N MILLER**.

Controversies regarding urine testing, **R DOUGHERTY**.

The treatment of alcoholic methadone patients: a review, **W BICKEL** *et al.*

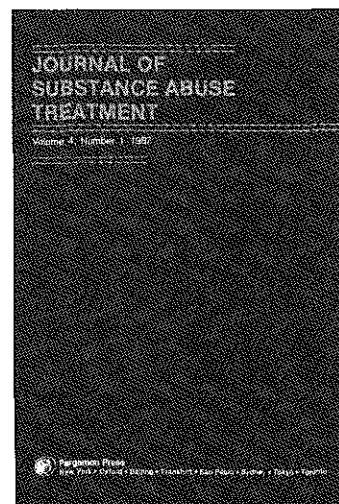
Family therapy and reductions in treatment dropout in a residential therapeutic community for chemically dependent adolescents, **A WEIDMAN**.

A behavioral solution to the drunk driving dilemma, **M COREY**.

Alcoholism: the challenge of conceptualization and consensus (a clinician's perspective), **E KHANTZIAN**.

AIDS: relationship to alcohol and other drugs, **L SIEGEL**.

**Indexed/Abstracted in:** *Index Medicus, MEDLINE, MEDLARS, Selected List of Tables of Contents of Psych Per, Sociological Abstr, Psychological Abstr, PsycINFO, CABS, BIOSIS Database*



**Subscription Information**  
1988: Volume 5 (4 issues)  
ISSN: 0740-5472 (744)

# JOURNAL OF ACCOUNTING EDUCATION

Editor-in-Chief: **E KENT ST PIERRE**, *School of Accounting, James Madison University, Harrisonburg, VA 22807, USA*

The *Journal of Accounting Education (JAEd)* is a refereed journal dedicated to promoting excellence in teaching and stimulating research in accounting education. The Journal provides a forum for exchanging ideas, opinions, and research results among accounting educators in community colleges, four-year colleges and universities and graduate institutions.

The *JAEd* has two sections: a Main section in which articles present in-depth analyses of the topics discussed and a Teaching and Educational Notes section which is designed to provide a forum. The latter contains short papers with information of interest to readers of *JAEd*.

## A Selection of Papers

### Main Section

Auditors' common law liability: what we should be telling our students, **T A GAVIN** *et al.*

Attitude measurement and the perceptions of tax accounting faculty publication outlets, **W A RAABE** *et al.*

Sequencing exam questions relative to topic presentation, **R A GRUBER**.

The use of microcomputers in intermediate accounting: effects on student achievement and attitudes, **T L DICKENS & R M HARPER JR.**

Electronic spreadsheet technology in the teaching of accounting and taxation - users, limitations and examples, **C D IZARD & J M REEVE**.

### Teaching and Educational Notes Section

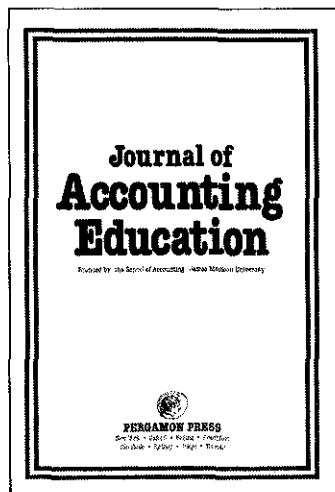
The descriptive case project for accounting information systems courses, **A C JOY**.

Incorporating authoritative pronouncements with intermediate and advanced accounting syllabi, **M COLLINS**.

Delphic choice of accounting periodicals for university libraries, **E L BRYAN** *et al.*

Financial statement analysis in introductory financial accounting for MBA's, **T B O'KEEFE**.

Accounting internships: the state of the art, **J SCHMUTTE**.



**Subscription information**  
1988: Volume 6 (2 issues)  
ISSN: 0748-5751 (840)

# JOURNAL OF AEROSOL SCIENCE

An International Journal  
(In association with the Gesellschaft für Aerosolforschung)

Editor-in-Chief: **D HOCHRAINER**, *Fraunhofer-Institut, D-5948 Schmallenberg, Federal Republic of Germany*

The aim of the journal is to encourage the submission of original, well-documented papers on all aspects of aerosol research. Areas covered include: basic and applied aerosol formation, processes and reactions; chemistry; mechanics; optics; electrostatics; analysis; electromagnetic; acoustic and nuclear radiations; diffusion processes; mobility; condensation and evaporation; heat motion; energy distribution; forces of attraction and repulsion; turbulence; coagulation; deposition; biological action; inhalation; nucleation; microscopy and electron microscopy; instrumentation.

The *Journal of Aerosol Science* publishes original research papers, occasional reviews and the contents of the *Journal of Aerosol Research, Japan* - the official publication of the Japan Association of Aerosol Science and Technology.

## A Selection of Papers

Mineral aerosols and source identification, **L SCHUTZ** (FRG) & **M SEBERT** (FRG).

Onset of particle crystallization resulting from acid droplet ammonia gas reactions, **G O RUBEL** (USA) & **J W GENTRY** (USA).

Coulombic deposition mechanism in electret filters, **J PICH** (Japan) *et al.*

Particle deposition within the inertial spectrometer, **F BELOSI** (Italy) & **V PRODI** (Italy).

Inspiratory vs expiratory aerosol deposition in excised dog lungs, **W D BENNETT** (USA) & **G C SMALDONE** (USA).

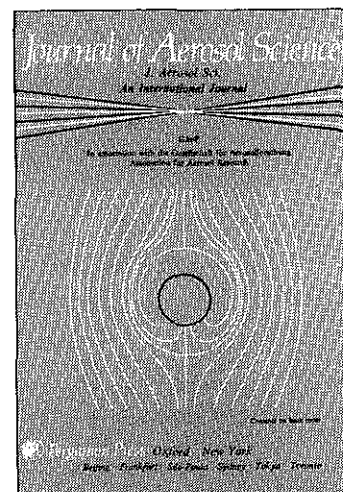
Moment simulation of aerosol evaporation, **J R BROCK** (USA) & **J OATES** (USA).

A smog chamber study on the impact of aerosols on the photodegradation of chemicals in the troposphere, **W BEHNKE** (FRG) *et al.*

Experimental measurement of the rate of unipolar charging of actinolite fibers, **P Y YU** (USA) *et al.*

Drag on non-spherical, orthotropic aerosol particles, **D L JOHNSON** (USA) *et al.*

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 19 (6 issues)  
ISSN: 0021-8502 (337)



# LAW AND MENTAL HEALTH

International Perspectives

Editor: **DAVID N WEISSTUB**, *Institut Philippe Pinel, Université de Montreal, Osgood Hall Law School, Toronto, Canada*

*Law and Mental Health* is an international review journal published once a year in which experts present the state of the art on topics such as criminal responsibility, informed consent and forensic assessment, frequently citing not only the English language literature but Dutch, French, German and Spanish sources as well.

## A Selection of Papers

Volume 1 (1984)

Criminal responsibility and mental impairment in American criminal law: response to the Hinkley acquittal in historical perspective, **G E DIX**.

Informed consent, **P S APPELBAUM**.

Sexual aggression: studies of offenders against women, **V L QUINSEY**.

Volume 2 (1986)

Mental health law and law reform in the Commonwealth - the rise of the new legalism?, **R GORDON & S VERDUN-JONES**.

Malpractice in American psychiatry: toward a restructuring of the psychiatrist-patient relationship, **L R TANCREDI & D N WEISSTUB**.

Volume 3 (1987)

Law and psychiatry in Holland: a retrospective, **M ZEEGERS & J KRUL-STEKETEE**.

The psychology of political terrorism, **G WARDLAW**.

Psychological assessments for legal decisions, **T GRISSO**.

## Subscription Information

1988: Volume 4 (1 issue)

ISSN: 0890-5037 (817)

# LEONARDO

Journal of the International Society for the Arts Sciences and Technology (ISAST)

Executive Editor: **R F MALINA**

Managing Editor: **P GRANT-RYAN**

Main Editorial Office: 2020 Milvia Street, Suite 310, Berkeley, CA 94704, USA

*Leonardo* is an international journal for artists and others interested in the contemporary arts. Particularly concerned with the interaction among the arts, sciences and technology, *Leonardo* has no restriction on artistic tendency, content or medium. We feature articles written by artists about their own work, discussions of new concepts, materials and techniques, and subjects of general artistic interest.

The journal focuses on the visual arts and also addresses media, music, kinetic, performance, language, environmental and conceptual arts, especially as they relate to the visual arts. The journal also addresses legal, economic and political aspects of art.

All articles are peer reviewed by technical referees before acceptance for publication.

The journal includes the following sections:

- Historical perspectives on the contemporary arts and sciences
- Theoretical perspectives on the contemporary arts and sciences
- Sound, Music, Science and Technology
- I.S.A.S.T Bulletin: International News and Opportunities
- Current Literature, Book Reviews and Software Survey
- Commentaries and Letters

## A Selection of Papers

Sonic and visual structures: Theory and experiment, **N SCHÖFFER**.

Computer-aided design of environmental sculpture, **R FISHER** and **R MASTERS**.

Artificial intelligence and the arts, **S WILSON**.

The place of science and technology in the liberal arts curriculum, **D SAXON**.

Skinning cars in the American west: Transforming automobiles into relief sculptures, **D SHULER**.

A new medium for visual artists: Ultrasonic imaging, **P GREGUSS**.

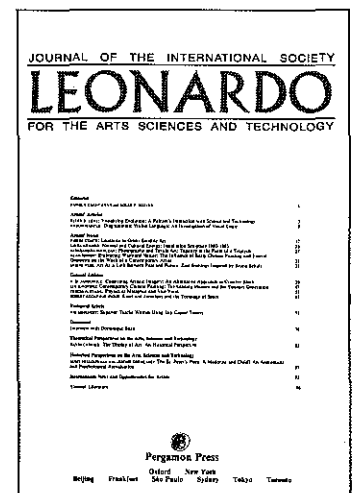
A visual aid for artists and others with *Retinitis pigmentosa* ('tunnel vision'), **I GORDON** and **E JOHNS**.

A Software Survey section is included in this journal.

## Subscription Information

1988: Volume 21 (4 issues)

ISSN: 0024-094X (318)



Now Typeset

## JOURNAL OF APPLIED CARDIOLOGY

Editor-in-Chief: **RICHARD J BING MD**, *Director, Experimental Cardiology, Huntington Memorial Hospital, 100 Congress Street, Pasadena, CA 91105, USA*

Co-Editor-in-Chief: **HEINRICH TAEGTMEYER MD PhD**, *University of Texas, Health Science Center at Houston, PO Box 20708, Houston, TX 77225, USA*

Now in its third volume, the *Journal of Applied Cardiology (JAC)* has quickly developed an international reputation for preserving, encouraging and developing the vital link between the laboratory and the clinic. Readers have found it a key source for findings on the relationships between normal and pathologic function and the clinical manifestations of heart and vascular disease. *JAC*'s aim is to integrate the clinical disease state with underlying basic principles.

*JAC* features original contributions which describe newly gained fundamental information and its projected clinical application, as well as historical review articles describing the development of scientific and clinical thinking.

### A Selection of Papers

Diabetic cardiomyopathy: membrane dysfunction and therapeutic strategies, **P GANGULY** (Canada) *et al.*

Recent concepts in the management of myocardial failure complicating acute myocardial infarction, **M BOURASSA** (Canada).

Dual inhibition of myocardial function through muscarinic and adenosine receptors in the mammalian heart, **M ENDOH** (Japan).

A half-century of research on catecholamine biosynthesis, **H BLASHCKO** (UK).

The coronary circulation in systemic sclerosis, **A KAHAN** (France) *et al.*

Function and metabolism of the heart in diabetes: a fresh look at an old problem, **H TAEGTMEYER** (USA) *et al.*

Interaction between vascular wall and blood cells in the canine heart, **J SCHAPER & W SCHAPER** (FRG).

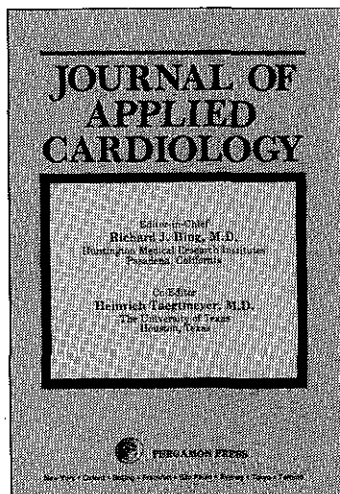
The myocardium in diabetes mellitus, **T REGAN** (USA).

Human atrial natriuretic polypeptide, **M ISHII** (Japan).

Newer inotropic agents for managing patients with congestive heart failure, **T LeJEMTEL** (USA).

Cardiac electrophysiologic actions of verapamil, diltiazem and nifedipine in the anesthetized dog using controlled programmed electrical stimulation, **L SZEKERES** (Hungary).

**Indexed/Abstracted in:** *Current Contents/Clinical Medicine, SCISEARCH, ASCA, ISI/BIOMED, and Current Awareness in Biological Sciences (CABS)*



**Subscription Information**  
1988: Volume 3 (6 issues)  
ISSN: 0883-2935 (780)

## JOURNAL OF APPLIED MATHEMATICS AND MECHANICS

Translation of the Soviet Journal *Prikladnaia Matematika i Mekhanika*

Scientific Translation Editors: **G HERRMANN**, *School of Engineering, Stanford University, Stanford, CA 94305, USA* and **R C GLASS**, *The City University, Northampton Square, London EC1V 0HB, UK*

This journal is a cover-to-cover translation of the Soviet journal *Prikladnaia Matematika i Mekhanika*, published by the USSR Academy of Sciences and reflecting all the major achievements of the Soviet School of Mechanics.

The journal is concerned with high-level mathematical investigations of modern physical and mechanical problems and reports current progress in this field. Special emphasis is placed on aeronautics and space science and such subjects as continuum mechanics, theory of elasticity, and mathematics of space flight guidance and control.

### A Selection of Papers

Dynamically stable principles of optimality in cooperative differential games on quick action operation, **N N DANILOV** (USSR).

The use of first integrals in problems of synthesizing optimal control systems, **V E BERBYUK** (USSR).

Optimal control of stepwise processes with periodic characteristics, **A B PIUNOVSKII** (USSR).

On uniform linear invariant relations of the equations of dynamics, **A S SUMBATOV** (USSR).

On the stability of stationary motions of nonconservative mechanical systems, **A V KARAPETYAN** (USSR) & **V N RUBANOVSKII** (USSR).

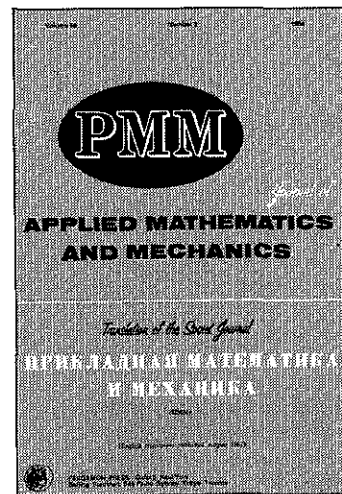
Stability under constantly acting perturbations, and averaging in an unbounded interval in systems with impulses, **V SH BURD** (USSR).

On the stability of unsteady motions, **A I IL'IN** (USSR).

Non-local criteria for the existence and stability of periodic oscillations in autonomous Hamiltonian systems, **A A ZEVIN** (USSR).

Stability of the uniform rotation of a gyrostator round the vertical main axis on an absolutely smooth horizontal plane, **S A BELIKOV** (USSR).

**Indexed/Abstracted in:** *Cambridge Sci Abstracts*



**Subscription Information**  
1988: Volume 51 (6 issues)  
ISSN: 0021-8928 (248)

# LIFE SCIENCES

The International Medium for Rapid Publication of Communications in the Life Sciences

Editor-in-Chief: **RUBIN BRESSLER MD**, *Arizona Health Sciences Center, Department of Pharmacology, 1501 North Campbell Ave, Tucson, AZ 85724, USA*

Editor of AIDS Section: **EVAN M HERSH MD**, *The University of Arizona, Department of Internal Medicine, Section of Hematology & Oncology, Arizona Cancer Center, Tucson, AZ 85724, USA*

This famous journal publishes papers concerning the pharmacological aspects of biochemistry, chemistry, endocrinology, immunology, medicinal chemistry, microbiology, molecular biology, pathology, physiology and toxicology. Contributions are viewed on the basis of their scientific merit and the need for rapid publication and cover (1) new information (2) mini-reviews on selected aspects of a scientific field undergoing rapid change (3) brief conceptual papers based on original and/or literature data (4) relevant clinical discoveries (5) collections of selected papers on current concepts in a particular field (6) occasional symposia papers. The journal also has established a special section for the rapid publication of articles on AIDS, under the editorship of Dr Evan Hersh.

## A Selection of Papers

Reversal of the effects of centrally-administered morphine on colonic motility in dogs by the benzodiazepine receptor antagonist RO 15-1788, **J FIORAMONTI et al.**

Modulation of human neuroblastoma transplanted into nude mice by endogenous opioid systems, **P J McLAUGHLIN & I S ZAGON.**

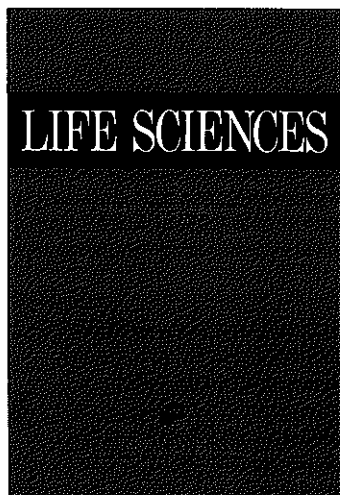
Elevated daytime rat pineal and serum melatonin levels induced by isoproterenol are depressed by swimming, **W WU et al.**

The benzodiazepine receptor inverse agonists FG 7142 and RO 15-4513: both reverse some of the behavioral effects of ethanol in a holeboard test, **R G LISTER.**

Neuroleptic-induced oral movements in rats: methodological issues, **A D LEVY et al.**

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, CABS, BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Psychol Abstr, Nutr Abstr, Energy Res Abstr, Energy DataBase, Ophthal Lit, Biological Abstr, Excerpta Medica, PASCAL-CNRS Database*



## Subscription Information

1988: Volumes 42 & 43  
(52 issues)  
ISSN: 0024-3205 (280)

# LONG RANGE PLANNING

The Journal of the Strategic Planning Society and of the European Planning Federation

Editors: **BERNARD TAYLOR** and **MARTIN E BURRIDGE** (Executive Editor), *Henley — The Management College, Greenlands, Henley-on-Thames, Oxon RG9 3AU, UK*  
American Editor: **IAN WILSON**, *SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025, USA*

What is long range planning? In this journal it means dealing with the future implications of present decisions on setting goals, developing strategy to achieve them, translating strategy into detailed operational programmes and ensuring that plans are carried out. It concerns the planning of the total resources of an organization for the achievement of quantified objectives within a specified time.

*Long Range Planning* has become recognised worldwide as the leading journal in this field by consistently keeping senior managers in industry, administrators in government, and academics and research workers informed about new developments in long range planning as they occur. The journal provides an international forum for new thinking about the problems and techniques of forward planning in business and government.

## A Selection of Papers

Assessing your competitor's people and organization, **R BALL (UK).**

Acquiring companies in the U.S.A., **H S ADLER (UK) & C G SNEATH (UK).**

Planning for technology as a corporate resource: a strategic classification, **L A VAN GUNSTEREN (The Netherlands).**

Business strategies in small high-technology companies, **J GRIEVE SMITH (UK) & V FLECK (UK).**

Narrowing the gap - equal pay in Britain 1970-1986, **Z TZANNATOS (UK).**

Who influences strategic decisions?, **W H HEGARTY (USA) & R C HOFFMAN (USA).**

**Indexed in:** *Current Contents/ Social & Behavioral Sciences, Current Contents/ Health Services Administration*

## Subscription Information

1988: Volume 21 (6 issues)  
ISSN: 0024-6301 (358)

*New for 1988*

# THE BEST OF LONG RANGE PLANNING

Classic Papers in Strategic and Corporate Planning

General Editor: **BERNARD TAYLOR**, *Henley — The Management College, Henley-on-Thames, Oxfordshire RG9 3AU, UK*

Since its inception in 1968, *Long Range Planning* has published many papers which have proved significant landmarks in the literature, pointing the way forward to the establishment of tried and proven practices. These papers, together with more recent contributions, have now been brought together as subject issues under the general editorship of Professor Bernard Taylor who has been the editor of *Long Range Planning* from the first issue. The first volume will cover:

Strategic Planning: The Chief Executive and the Board:  
Entrepreneurship: Creating and Managing New Ventures:  
Making Strategic Planning Work in Practice:  
Planning for Information as a Corporate Resource.

## Subscription Information

1988: Volume 1 (4 issues)  
ISSN: 0889-3136 (812)

# JOURNAL OF BIOMECHANICS

Affiliated with the American Society of Biomechanics and the European Society of Biomechanics

Editors-in-Chief: **RICHARD A BRAND**, Professor of Orthopaedic Surgery, The University of Iowa Hospitals & Clinics, Department of Orthopaedic Surgery, Biomechanics Laboratory, Iowa City, IA 52242, USA and **RIK HUISKES**, Biomechanics Laboratory, Department of Orthopaedics, University of Nijmegen, Nijmegen, The Netherlands

The *Journal of Biomechanics*, Publishes original research concerning the application of mechanics to medical and biological problems. Analytical as well as experimental papers are accepted for publication. Papers published in the journal may cover a wide range of topics in biomechanics, examples of which are:

## Fundamental

Dynamics of the musculoskeletal system, mechanics of hard and soft tissues, mechanics of muscles, mechanics of bone remodeling, mechanics of implant-tissue interfaces.

## Orthopaedic biomechanics

Mechanics of fracture and fracture fixation, mechanics of implants and implant fixation, mechanics of bones and joints.

## Cardiovascular and respiratory biomechanics

Mechanics of blood flow, air flow, mechanics of the soft tissue and flow tissue interactions.

## Dental biomechanics

Design and analysis of dental prostheses, mechanics of chewing, analysis of dental materials.

## Biomechanics of human injury

Mechanics of impact, dynamics of man-machine interaction.

## Rehabilitation of biomechanics

Analyses of gait, mechanics of prosthetics and orthopaedics.

## Sports biomechanics

Mechanical analyses of sports performance.

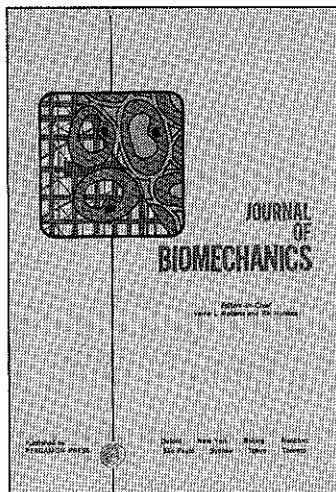
## A Selection of papers

Biomechanical study of the programming of anticipatory postural adjustments associated with voluntary movement, **S BOUISSET & M ZATTARA**.

Mechanical strength of tibicular bone evaluated by X-ray computed tomography, **S M BENTZEN, et al.**

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLINE, MEDLARS, Eng Index Monthly & Author Index, BIOSIS Database, CABS, Engng Index Annual, COMPENDEX, Ei Eng Meeting, Eng Index Bioengineering Abstr, PASCAL-CNRS and INSPEC.*



**Subscription Information**  
1988: Volume 21 (12 issues)  
ISSN: 0021-9290 (321)

# JOURNAL OF CANCER EDUCATION

The Official Journal of the American Association for Cancer Education

Editor-in-Chief: **R F BAKEMEIER**, University of Colorado Health Science Center, 4125 E. 3rd Avenue, Denver, CO 80220, USA

The *Journal of Cancer Education* is an international, quarterly journal dedicated to the publication of original contributions dealing with the varied aspects of cancer education for physicians, dentists, nurses, students, social workers and other allied health professionals, patients, and the general public.

Articles featured include reports of original results of educational research, as well as discussions of current problems and techniques in cancer education.

The following topics as they relate to medical, dental and nursing cancer education are included:

- Student Education
- Oncologic Specialty Training
- Continuing Education
- Patient and Public Education.

## A Selection of Papers

A program model for nurses involved with cancer education of black Americans, **M FRANK-STROMBORG et al.**

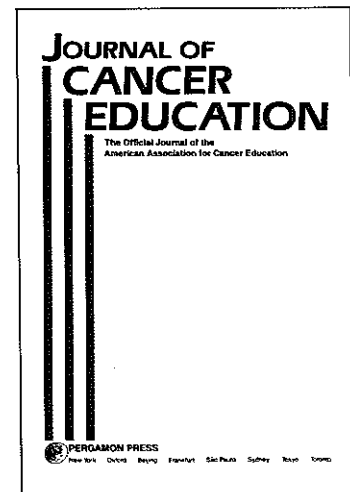
Preparing effective lecture slides, **R E GALLAGHER**.

An integrated oncology course for second year medical students, **D W LUEDKE et al.**

A survey of housestaff attitudes towards terminal care education, **R GOLDBERG et al.**

Women's knowledge and beliefs about breast cancer risk factors, symptoms, detection methods and treatments, **S L DARROW et al.**

Measuring common public misperceptions about cancer, **S L LUTHER et al.**



**Subscription Information**  
1988: Volume 3 (4 issues)  
ISSN: 0885-8195 (796)

# MARINE POLLUTION BULLETIN

The International Journal for Marine Environmentalists, Scientists, Engineers, Administrators, Politicians and Lawyers

Editor: **ROBERT B CLARK**, *Department of Zoology, The University, Newcastle-upon-Tyne NE1 7RU, UK*

*Marine Pollution Bulletin* is concerned with the rational use of maritime and marine resources in estuaries, the seas and oceans. A wide range of topics are discussed, as news, comment, reviews and research reports, not only on effluent disposal and pollution control but also on the management and productivity of the marine environment in general. The *Bulletin* also provides information and comment on events with implications for human use and enjoyment of the seas and coastal environment. First published in 1970, it has proved to be an important and influential journal.

The journal includes a "Laws of the Sea" column explaining and commenting on new or impending international and national legislation relating to the use of the sea and "Viewpoint" articles commenting on national attitudes to the control of effluent disposal in the sea and other opinions regarding current events.

## A Selection of Papers

On the speciation of metals in the water column of a polluted estuary, **G W LUTHER III (USA) et al.**

Accumulation of butyltins in muscle tissue of chinook salmon reared in sea pens treated with tri-n-butyltin,

**J W SHORT (USA) & F P THROWER (USA).**

Mixed function oxidase activity and cytochrome P-450 forms in black-headed gulls feeding in different areas,

**C FOSSI (Italy) et al.**

Dissolved and particulate phthalate esters in the River Mersey estuary, **M R PRESTON (UK) & L A AL-OMRAN (UK).**

Coprostanols in Antarctic marine sediments: a biomarker for marine mammals and not human pollution,

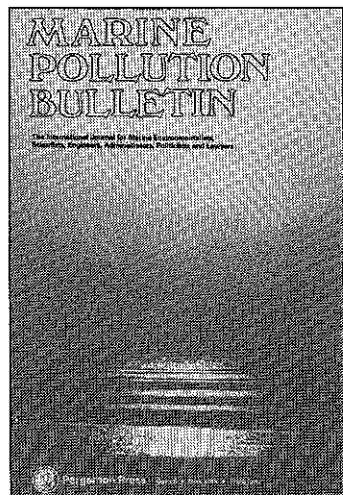
**M I VENKATESAN (USA) et al.**

Cadmium content, accumulation and toxicity in dogwhelks collected around the Welsh coastline, **A M ABDULLAH (UK) & M P IRELAND (UK).**

Seasonal studies on cadmium, concentration and toxicity, oxygen consumption, digestive gland glycogen, and lipid in dogwhelks collected at Aberystwyth, Wales, **A M ABDULLAH (UK) & M P IRELAND (UK).**

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Chemical Abstracts, Current Contents, Excerpta Medica, Current Awareness in Biological Sciences, Current Awareness in Biological Sciences(CABS), BIOSIS Database*



**Subscription Information**  
1988: Volume 19 (12 issues)  
ISSN: 0025-326X (400)

# MATERIALS AND SOCIETY

Published on behalf of Acta Metallurgica Inc.

Editor-in-Chief: **WILLIAM VOGELY**, *221 Walker Building, The Pennsylvania State University, University Park, PA 16801 USA*

*Materials and Society* is a quarterly journal emphasizing practical and scholarly studies concerning the cause and effect of the interaction of materials and society.

It provides a broad base for the expression of thought, policies, and findings related to issues on:

Materials Availability - resources, reserves, conservation, recycling.

Environmental Factors - land use, reclamation, extraction (air and water quality), refining and use, solid waste disposal, erosion and thermal effects.

Energy - efficiencies and conservation in material processing.

Economics - materials research and development as a response to society's needs, cost and performance analysis, materials consumption, econometrics, and growth.

*Materials and Society* is a valuable source of information for legislators, educators, professionals, practical engineers, scientists, economists, financiers, historians, and political scientists.

## A Selection of Papers

Substitution in the insulated cable market: a study of copper-aluminium materials substitution, **R M VALDES (Australia).**

Environmental and petroleum resource conflicts: a simulation model to determine the benefits of petroleum production in the Arctic National Wildlife Refuge, Alaska,

**W T GOEROLD (USA).**

Strategic materials - technological relevance and international concepts, **H CZICHOS (FRG).**

Perspectives on intensity of use, **D HUMPHREYS (UK).**

Understanding trends in metal demand, **T J CONSIDINE (USA).**

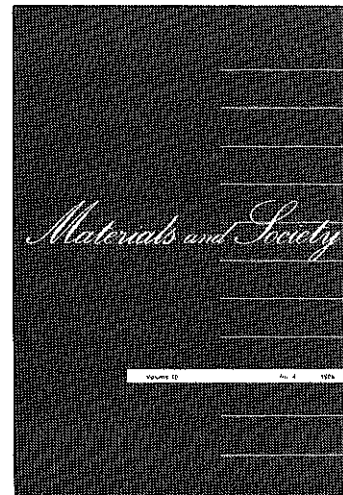
The consumption of metals and international trade,

**M C ROBERTS (USA).**

Major metal market structure, **W A VOGELY (USA).**

A Software Survey section is included in this section.

**Indexed/Abstracted in:** *Current Contents, Cambridge Sci Abstracts, Energy Data Base, Energy Res Abstracts, Engng Ind Monthly & Author Index, ISMEC Bulletin, Science Citation Index, Solid State Abstracts*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0146-6399 (519)

## JOURNAL OF CLINICAL EPIDEMIOLOGY

(formerly *Journal of Chronic Diseases*)

Editors-in-Chief: **ALVAN R FEINSTEIN**, Professor, Departments of Medicine and Epidemiology, Director, Clinical Epidemiology Unit, Yale University School of Medicine, New Haven, CT 06510, USA and **WALKER O SPITZER**, Strathcona Professor and Chairman, Department of Epidemiology & Biostatistics, Professor, Department of Medicine, McGill University, Faculty of Medicine, Montreal, Quebec, H3A 1A2, Canada

Established more than 25 years ago, the journal is a forum for clinical epidemiologic studies — in the domain formed by the interplay of clinical medicine, epidemiology, and biostatistics. The papers published are on research oriented toward methods, content, or both. The methodologic issues include: the design and analysis of clinical trials and observational studies, principles of measurement and evaluation, statistical techniques and strategies, and pertinent applications of computers. The contents include such topics as: etiology of disease, studies of natural history, clinical course, diagnostic procedures, prophylaxis, therapy, impact of chronic illness, patient care, and rehabilitation.

### A Selection of Papers

The seasonal risk of pediatric/juvenile acute lymphocytic leukemia in the United States, **R E HARRIS** *et al.*

Physical activity and its relationship to blood pressure in school children, **S PANICO** *et al.*

A brief POMS measure of distress for cancer patients, **D F CELLA** *et al.*

Factors influencing haematological measurements in healthy adults, **R S C ROGER** *et al.*

Social network interaction and mortality. A six year follow-up study of a random sample of the Swedish population, **K ORTH-GOMER** & **J V JOHNSON**.

A prospective study of the Jenkins Activity Survey as a risk indicator for coronary heart disease in The Netherlands, **A APPELS** *et al.*

Reported herpes-virus-infection, fever and cancer incidence in a prospective study, **R GROSSARTH-MATICEK** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLINE, MEDLARS, CABS, BIOSIS Database, BRS Database, Sociedad Iberoamericana de Informacion Cientifica*

### Subscription Information

1988: Volume 41 (12 issues)

ISSN: 0021-9681 (245)

## JOURNAL OF CRIMINAL JUSTICE

An International Journal

Editor: **KENT B JOSCELYN**, PO Box 1563, Ann Arbor, MI 48106, USA

The *Journal of Criminal Justice* is an international journal intended to fill the present need for the dissemination of new information, ideas and methods, to both practitioners and academicians in the criminal justice area. The journal is concerned with all aspects of the criminal justice system in terms of their relationships to each other. Although materials are presented relating to crime and the individual elements of the criminal justice system, the emphasis of the journal is to tie together the functioning of these elements and to illustrate the effects of their interactions. Papers that reflect the application of new disciplines or analytical methodologies to the problems of criminal justice are of special interest.

Since the purpose of the journal is to provide a forum for the dissemination of new ideas, new information and the application of new methods to the problems and functions of the criminal justice system, the journal emphasizes innovation and creative thought of the highest quality.

### A Selection of Papers

Patterns of discrimination in assessments of the death penalty: the case of Louisiana, **M D SMITH**.

Deviation from sentencing guidelines: the issue of unwarranted disparity, **D B GRISWOLD**.

The human impact of capital punishment: interviews with families of persons on death row, **J O SMYKLA**.

An empirical assessment of the effects of prison crowding upon recidivism utilizing aggregate level data, **O CLAYTON Jr** & **T CARR**.

Change and influence in popular criminology: public attributions of crime causation, **T J FLANAGAN**.

Crime and punishment: a social welfare analysis, **J F McDONALD**.

Surviving the loss of federal dollars and mandate: the case of state planning agencies, **J K HUDZIK**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Psychol Abstr, Crime & Delinq Lit, IBZ, Current Law Ind, Criminal Justice Abstr, Communication Abstr*

### Subscription Information

1988: Volume 16 (6 issues)

ISSN: 0047-2352 (366)

**JOURNAL  
OF CRIMINAL  
JUSTICE**



# MECHANICS RESEARCH COMMUNICATIONS

Editor: **BRUNO A BOLEY**, *Department of Civil Engineering and Engineering Mechanics, Columbia University, New York, NY 10027, USA*

*Mechanics Research Communications* provides a fast means of communication and exchange of ideas among workers in mechanics, and offers an effective method of bringing new results quickly to the public. By doing so the journal establishes an informal vehicle for the discussion of ideas that may still be in the formative stages.

The journal encompasses the behaviour of fluids, solids, particles, continua, rigid bodies, mechanisms, systems and so forth, enabling the field of mechanics to be understood in a broad sense. It will include theoretical and experimental results, and fundamental and practical research.

## A Selection of Papers

Realistic modeling of automobile skidding, **T R KANE** (USA) & **D A LEVINSON** (USA).

Finite difference analysis of unsteady free convective flow through a porous medium adjacent to a semi-infinite vertical plate, **A RAPTIS** (Greece) *et al.*

Elimination of Lagrangian Multipliers, **S VLASE** (Romania).  
On deformations possible in every compressible elastic body, **R A DALKE** (USA).

MHD unsteady incompressible three-dimensional asymmetric stagnation point boundary layers, **H S TAKHAR** (UK) *et al.*

Dynamic stability of thick rectangular plates, **V BIRMAN** (USA).

Non-uniform torsion of short bars having sections with only one axis of symmetry, **N K DAS TALUKDER** (India) & **J P DWIVEDI** (India).

New integrable cases in the dynamics of rigid bodies - II, **H M YEHA** (Egypt).

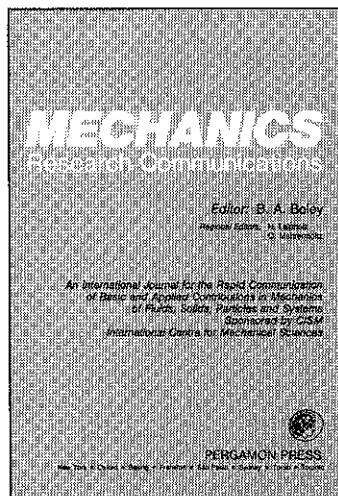
Image processing methods in ductile fracture of solids, **Y J CHAO** (USA).

Effect of particle volume change on characteristics in one-dimensional two-phase flow, **A SARAYLOO** (USA) & **J PEDDIESON Jr** (USA).

Approximation of the shear rate and determination of the behaviour law of blood, **G MAURICE** (France).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Applied Mechanics Reviews, INSPEC, Mechanics, PASCAL-CNRS Database, Shock and Vibration Digestion*



## Subscription Information

1988: Volume 15 (6 issues)  
ISSN: 0093-6413 (374)

# MECHANISM AND MACHINE THEORY

The Scientific Journal of the International Federation for the Theory of Machines and Mechanisms

Editor-in-Chief: **T E SHOUP**, *Dean of Engineering, Florida Atlantic University, Boca Raton, FL 33431, USA*

This international journal provides a medium of communication between engineers and scientists engaged in research and development within the fields of science embraced by the International Federation for the Theory of Machines and Mechanisms (IFTOMM). These fields are: mechanism; dynamics of machines; applied vibrations; gearing and transmissions; man-machine systems and robots; mechanical systems; pneumatic and hydraulic machine controls; applications of mathematics, graphics and computers to machine theory and design; and experimental test techniques and results. The journal announces conferences, news of IFTOMM, publishes book and thesis reviews, and letters to the Editor.

## A Selection of Papers

Chatter vibration of flexible multibody machine tool mechanisms, **A SHABANA** (USA) & **B THOMAS** (USA)

Reliability analysis of bevel gears with and without back support, **E M AL-SHAREEDAH** (Kuwait) & **H ALAWI** (Kuwait).

An efficient iterative computational algorithm for design synthesis of 4 x 3 type double composite gear trains, **M O M OSMAN** (Canada) *et al.*

Research on complete shaking force and shaking moment balancing of spatial linkages, **YUE-QING YU** (China).

Dynamic analysis of a CAM mechanism with bearing clearances, **M O M OSMAN** (Canada)

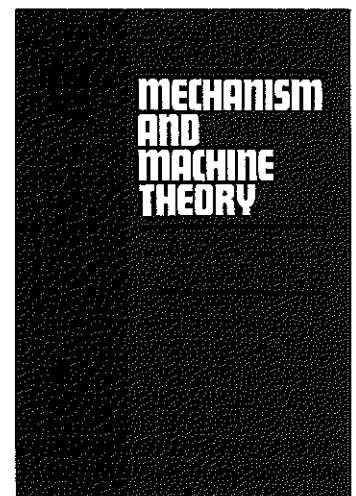
Kinematic analysis of mechanism links connected by a higher Kinematic pair and its application, **J ROSENBERG** (Czechoslovakia) & **J KREN** (Czechoslovakia)

Mechanical error of a four-bar linkage coupler curve, **G B CHATTERJEE** (India) & **A K MALLIK** (India).

Forces between an abrasive belt and pulley, **H KIM** (USA) *et al.*

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents, Computer Contents, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 23 (6 issues)  
ISSN: 0094-114X (303)

# JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS

An International Journal on all Drug-Related Topics in Pharmaceutical, Biomedical and Clinical Analysis

Editor-in-Chief: **ANTHONY F FELL**, *School of Pharmaceutical Chemistry, University of Bradford, Bradford, West Yorkshire BD7 1DP, UK*

This journal is an international medium for the publication of original research reports and authoritative reviews on pharmaceutical and biomedical analysis. It covers the interdisciplinary aspects of analysis in the pharmaceutical and biomedical sciences, including relevant developments in analytical methodology, instrumentation, computation and interpretation. Applications focus on individual groups of drugs, drug stability studies, pharmacokinetics, therapeutic monitoring, metabolic profiling, drug-related aspects of analytical biochemistry and forensic toxicology, quality assurance and drug-related topics of health and safety in the pharmaceutical industry.

The journal is directed towards the needs of academic, clinical, government and industrial analysis and presents a unique forum for the discussion of current developments at the interface between pharmaceutical, biochemical and clinical analysis.

## A Selection of Papers

Quantitative analysis of beta-adrenergic blocking agents by NMR spectroscopy, **M A IORIO** (Italy) *et al.*

Measurement of plasma etoposide by radioimmunoassay, **K YAMASHITA** (Japan) *et al.*

Analysis of nandrolone esters in oily injections by reversed-phase high-performance liquid chromatography, **V CAVRINI** (Italy) *et al.*

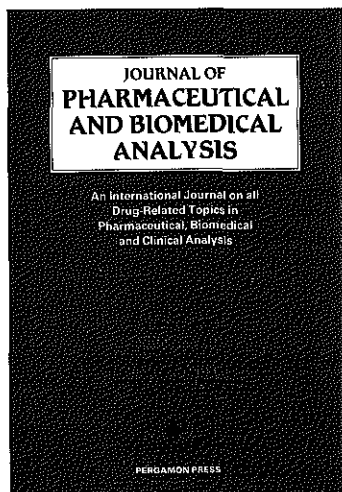
High-performance liquid chromatography of anthracycline antibiotics with electrochemical detection. Application to the clinical pharmacokinetics of 4'-deoxydoxorubicin, **C M RILEY** (USA) & **A K RUNYAN** (USA).

Better response to thiazides in blacks - lack of pharmacokinetic evidence with chlorothiazide, **G I ADEBAYO** (Nigeria) & **A F B MABADEJE** (Nigeria).

Determination of mixtures of sulphonamides by titration with chloramine-T, **K K VERMA** (India) *et al.*

Amantadine ion-selective membrane electrodes and their use in pharmaceutical analysis, **M S IONESCU** (Romania) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Contents, Excerpta Medica, BIOSIS Database*



**Subscription Information**  
1988: Volume 6 (8 issues)  
ISSN: 0731-7085 (6901)

# JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS

An International Journal

Editors: **A C DAMASK**, **G J DIENES** and **DAVID E COX**, *Physics Department, Building 510B, Brookhaven National Laboratory, Upton, NY 11973, USA*

Regional Editors: **A S BOROVIK-ROMANOV**, *Moscow*, **J FRIEDEL**, *Paris*, **S HOSHINO**, *Tokyo*, **JOHANN PEISL**, *Munich*, **J M THOMAS**, *London* and **GUAN WEIYAN**, *Hefei*

The *Journal of Physics and Chemistry of Solids* is an established international medium for the solid state sciences covering all aspects of the fundamental physics and chemistry of the solid state. Emphasis is placed upon experimental and theoretical work which elucidates the basic properties of, and processes in, condensed systems. Typical fields of interest are electronic, spectroscopic and structural properties of solids, and the statistical mechanics and thermodynamics of condensed systems. These systems include perfect and defect lattices, surfaces and interfaces, amorphous materials, and layered and low-dimensional structures. In addition to original papers, the journal also publishes short technical notes, invited topical review articles, special issues in rapidly developing fields and short communications on software.

## A Selection of Papers

Investigation of spatial distribution of neodymium in phosphate glasses by Raman and kinetic luminescence spectroscopy, **C PARENT** (France) *et al.*

Rutherford backscattering studies of surface density reduction in ion-implanted and excimer-laser-annealed Ge, **S KIGER** (USA) *et al.*

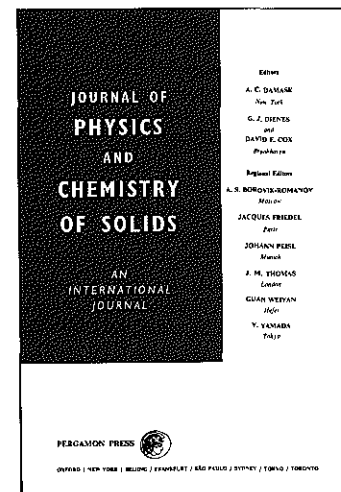
Influence of energy migration on the luminescence of  $\text{Li}_6\text{Eu}(\text{BO}_3)_3$ , a material with predominant one-dimensional interactions, **F W TIAN** (France) *et al.*

Electron spin resonance of  $\text{Cr}^{3+}$  in  $\text{TeO}_2$ ; Cr, **A WATTERICH** (USA) *et al.*

Mode Grüneisen parameters and thermal expansion of sodium nitrate, **M Md IBRAHIM** (India) *et al.*

Mössbauer spectroscopic study of iron fluoride surface layers, **S SWANEPOEL** (South Africa) & **C M STANDER** (South Africa)

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 49 (12 issues)  
ISSN: 0022-3697 (229)



# MICROELECTRONICS AND RELIABILITY

An International Journal & World Abstracting Service

Editor-in-Chief: **G W A DUMMER**, 27 King Edwards Rd, Malvern Wells, Worcestershire WR14 4AJ, UK

Assistant Editor-in-Chief: **H REICHE**, 22 Chapleau Avenue, Ottawa, Ontario, Canada

The increasing complexity of electronics and the widening field of application has made reliability one of the most important aspects of present day electronics. Modern systems and devices need accurate control in manufacture and considerable testing for very low failure rates, whilst mathematical analysis is also essential for maximum system reliability.

*Microelectronics and Reliability* combines the practical, theoretical and statistical aspects of reliability with design, construction, engineering and testing of microelectronic systems, bringing an up-to-date continuity never previously achieved. It is the only regular international journal in the world covering this specific field. Comprehensive abstracts of the world's publications on both microelectronics and reliability published within the last twelve months are regularly included, together with Book Reviews.

## A Selection of Papers

An approach in the life cycle cost of integrated logistic support, **J L ROCA** (Argentina).

Reliability modelling of electronic components, **A K VERMA** (India) & **A S R MURTY** (India).

A mixed CMOS-DMOS-JFET technology for switching circuits with high voltage output stages, **W J PODMIOTKO** (Poland) & **A BAKOWSKI** (Poland).

New reliability indices for topological design, **V M CATUNEANU** (Romania) & **F L POPENTIU** (Romania).

The branching nonhomogenous Poisson process and its applications to a replacement model, **K VEMATSU** (Japan) & **T NISHIDA** (Japan).

On estimating the shape parameter of the Weibull distribution by shrinkage towards an interval, **B N PANDEY** (India) & **H J MALIK** (Canada).

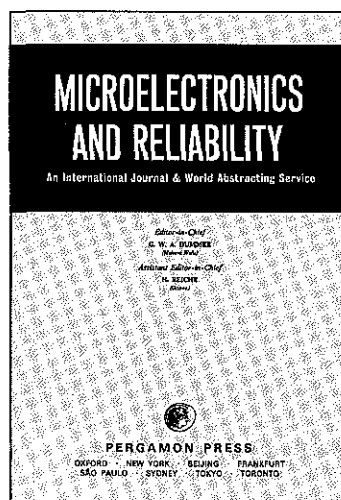
Parameter determination for a parallel device of stages, **C DICHIRICO** (Italy) & **C SINGH** (USA).

A shock model for software failures, **MIN XIE** (Sweden).

Reliability analysis of networks with human errors: a block diagram approach, **B S DHILLON** (Canada) & **S N RAYAPATI** (Canada).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Computer Contents, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 28 (6 issues)  
ISSN: 0026-2714 (274)

# MICROSCOPICA ACTA

The International Journal of Electron Microscopy, Electron Probe Microanalysis, Optical, Computer, and Electron Image Processing, and Associated Equipment and Techniques

Editor-in-Chief: **R W HORNE**, School of Biological Sciences, University of East Anglia, Norwich NR4 7TJ, UK

The aims of *Micron and Microscopica Acta* are to serve as an interdisciplinary forum for all work which involves the application, practice or theory of transmission and scanning electron microscopy, electron probe microanalysis, electron instrumentation and techniques associated with electron microscopy. The journal also publishes papers and reports on optical, computer and electron image analytical systems, including computer image processing.

Embracing original research work in biology, medicine, metallurgy and materials science and physical sciences, *Micron and Microscopica Acta* publishes original and review articles, short communications, conference reports, bibliographies of papers of special interest, reports on new patents, and a calendar of upcoming events.

## A Selection of Papers

New devices and results for diagnostic histopathological transmission electron microscopy on large ultrathin cryosections from human tumours, **B WOLF** *et al.*

## Short Communications:

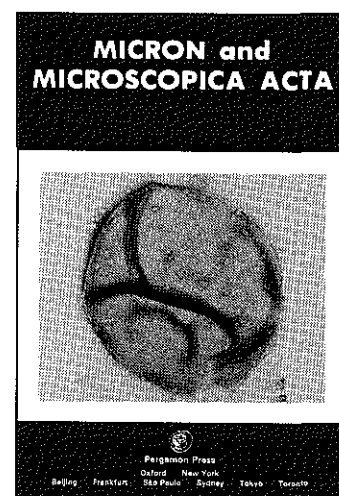
Tissue preparation for scanning electron microscopy of fruit surfaces: comparison of fresh and cryopreserved specimens and replicas of banana peel, **M H WILLIAMS** *et al.*

Digital evaluation of compacta cross-section preparations, **P HUTZSCHENREUTER** & **H MOLLE**.

## Conference Report:

R body round table.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, CABS, BIOSIS Database, INSPEC Database*



**Subscription Information**  
1988: Volume 18 (4 issues)  
ISSN: 0739-6260 (475)

# JOURNAL OF PSYCHOSOMATIC RESEARCH

Affiliated to the International College of Psychosomatic  
Medicine

Editor: **GEOFFREY LLOYD**, *Academic Department of  
Psychiatry, Royal Free Hospital, Hampstead, London NW3 2QG,  
UK*

First published in 1956, the *Journal of Psychosomatic Research*  
has contributed much to the placing of the psychological aspects  
of medicine on a truly scientific basis. Papers published in the  
journal reflect current research in the psychosomatic approach  
from both an experimental and a clinical viewpoint, and subject  
its theories to scientific examination. Specially commissioned  
review articles have been introduced to summarise the state of  
knowledge in areas in which there have been important recent  
advances.

Relevant work in other areas such as sociology, biology and  
anthropology is also covered. Relevant papers are welcomed for  
editorial consideration.

## A Selection of Papers

Response to symptoms in healthy, low utilizers of the health care  
system, **K J EGAN** (USA) & **R BEATON** (USA).

The different impact of diabetes type on female sexuality,  
**P SCHREINER-ENGEL** (USA) *et al.*

Ultrasound scanning in women with raised serum alpha  
fetoprotein: short term psychological effect,  
**M M TSOI** (Hong Kong) *et al.*

Asthma in opiate addicts, **A H GHODSE** (UK) &  
**J S MYLES** (UK).

The relationship between retrospective premenstrual symptom  
reporting and present oral contraceptive use,

**C A GRAHAM** (Canada) & **B B SHERWIN** (Canada).

Type A behaviour in housewives: relation to work, marital  
adjustments, stress, tension, health, fear-of-failure and self  
esteem, **B K HOUSTON** (USA) & **K E KELLY** (USA).

**Indexed/Abstracted in:** *Current Awareness in Biological  
Sciences (CABS), Current Contents, Excerpta Medica, Index  
Medicus, MEDLINE, Psychol, Abs, Psych INFO, Social Abs,  
BIOSIS Database*

# JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER

Editor: **S S PENNER**, *University of California (San Diego),  
La Jolla, CA 92093, USA*

The *Journal of Quantitative Spectroscopy & Radiative Transfer*  
is an international outlet for papers dealing with the following  
subjects: theoretical and experimental determinations of  
*f*-numbers or absolute intensities for atomic and/or molecular  
systems theoretical and experimental studies on spectral line  
shapes and widths; emissivities of heated gases, liquids and  
solids and long-range detection of radiating sources; quantitative  
spectroscopic techniques for environmental studies, particularly  
those related to rocket flights and satellite exploration; shock-  
tube studies in which the emphasis is on quantitative  
spectroscopy; radiant energy emission for plasmas and  
spectroscopic studies using lasers.

## A Selection of Papers

Dispersive plasma-satellites of a dipole-forbidden transition and  
the rotating field model, **J HILDEBRANDT** (FRG).

Predissociation linewidths for the Schumann-Runge bands of  
<sup>18</sup>O<sub>2</sub>, **B R LEWIS** (Australia) *et al.*

Collisional repopulation of excited Na-states upon laser-pumping  
in an H<sub>2</sub>-O<sub>2</sub>-Ar flame,

**C A VAN DEN WJNGAART** (The Netherlands) *et al.*

Comparison of atomic potentials and bremsstrahlung Gaunt  
factors in dense aluminum plasmas,

**M LAMOUREUX** (USA) *et al.*

Assignments of autoionization states of O<sub>2</sub>,

**C Y ROBERT WU** (USA).

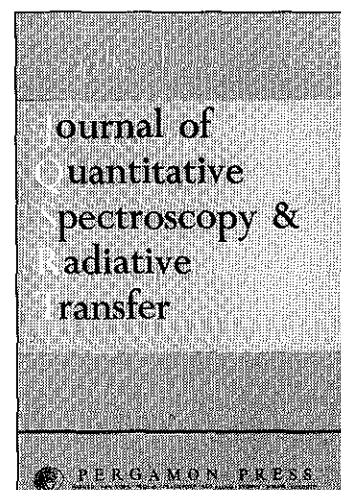
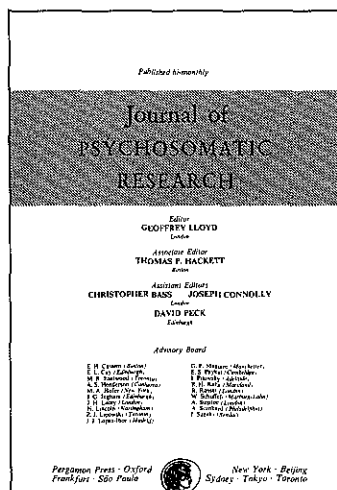
Vibration-rotational matrix elements for infrared transitions of  
diatomic molecules, **J P BODANICH** (France).

Dielectronic recombination rates for the Be sequence,

**D J McLAUGHLIN** (USA) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts,  
BIOSIS Database, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 32 (6 issues)

Editor: **KEITH J DORRINGTON**, *Chairman, Board of Regional Editors, Connaught Research Institute, 1755 Steeles Avenue West, Willowdale, Ontario, M2R 3T4, Canada*

This journal is primarily devoted to the publication and communication of immunological knowledge which can be delineated at the molecular level. Within this framework it publishes contributions concerned with the molecular analysis of the cellular components and processes which underlie the biological behavior of cells involved in immune phenomena. In addition, *Molecular Immunology* presents investigations directed to the elucidation of the chemical and physical properties of antibodies and antigens and to the physical-chemical analysis of their interactions. Publishing research reports, preliminary communications, review articles, book reviews, announcements, summaries of meetings and conferences, letters to the editor, speculations and hypothesis papers, *Molecular Immunology* enjoys a long-standing reputation as the leading journal in its field.

### A Selection of Papers

Analysis of the domain specificity of various murine anti-human IgM monoclonal antibodies differing in human B lymphocyte signaling activity, **S M RUDICH** *et al.*

The solution conformations of the subclasses of human IgG deduced from sedimentation and small angle X-ray scattering studies, **L GREGORY** *et al.*

Identification of an Fc receptor for IgG1 and IgG2 on guinea-pig polymorphonuclear leukocytes, **T NAKAMURA** *et al.*

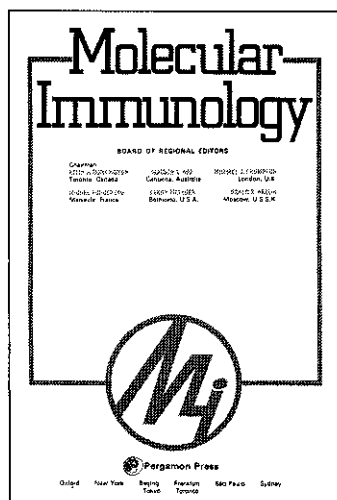
Unusual expression of HLA molecules at the surface of murine cells transfected with HLA-B7 or HLA-A11 genes, **M BOUILLOT** *et al.*

Effect of trimming inhibitors on the secretion and biological activity of murine IgE monoclonal antibody, **D A GRANATO** & **J-R NEESER**.

Immunochemical observations of antigen 5, a major venom allergen of hornets, yellowjackets and wasps, **T P KING** *et al.*  
Three distinct epitopes of the human MSK20 cell surface antigen are expressed on human and non-human primate cells, **D K PALMER** *et al.*

Analysis of asparagine-linked oligosaccharide structures of chronic lymphocytic leukemia cells, **G N VOLMAN** *et al.*  
Enhancement of complement-mediated lysis of dithiothreitol-treated erythrocytes involves increased C9 insertion and polymerization, **V W HU** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLINE, MEDLARS, CABS, BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 25 (12 issues)  
ISSN: 0161-5890 (253)

The Official Journal of the International Neural Network Society

Editors-in-Chief: **SHUN-ICHI AMARI**, *University of Tokyo, Faculty of Engineering, Instrumentation Physics, Bunkyo-Ku, Tokyo 113, Japan*, **STEPHEN GROSSBERG**, *Boston University, Center for Adaptive Systems, 111 Cummington Street, Boston, MA 02215, USA*, and **TEUVO KOHONEN**, *Helsinki University of Technology, Lab of Computer & Information Sciences, Raketanaukio 2C, SF-02150 Espoo 15, Finland*

Now a major focus of study by university, industry and government investigators, neural network research concerns the modelling of brain and behavioral processes and the application of these models to computer and related technologies. This research, now understood as an important aspect of the cognitive and neurosciences, is also precipitating a fundamental shift in computer science and artificial intelligence. Scientists and engineers are now using neural network models to help solve key technological problems. Interest in implementing these models in real-time hardware is, therefore, very high.

Topics include: vision and image processing, speech and language understanding, pattern recognition, associative learning and long-term memory, self-organisation, cognitive information processing, cooperative and competitive network dynamics and short-term memory, sensory-motor control and robotics, parallel distributed processing, local circuit and systems analyses of brain-behavior relationships, combinatorial optimization, electronic, optical, hybrid, and virtual devices and neuro-computers.

### A Selection of Papers

Non-linear neural networks: principles, mechanisms and architecture, **S GROSSBERG**.

An introduction to neural computing, **T KOHONEN**.  
Necognition: a hierarchical neural network capable of visual pattern recognition, **K FUKUSHIMA**.

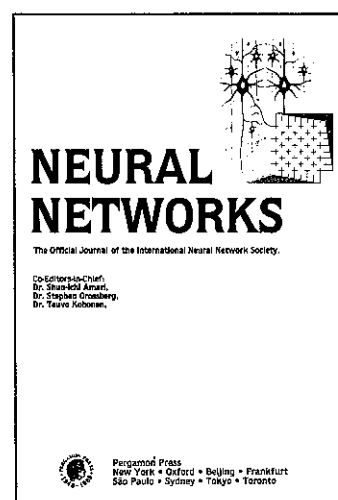
Analysis of the hidden units in a layered network that classifies sonar targets, **T SEJNOWSKI**.

Pattern classification and data analysis using counter-propagation networks, **R HECHT-NEILSON**.

A network for sensory segmentation, **C VON DER MALSBERG**.

Optical neural computers, **D PSALTIS**.

Are there relationships between artificial neural networks and biological nervous systems?, **A SELVERSTON**.



**Subscription Information**  
1988: Volume 1 (4 issues)  
ISSN: 0893-6080 (841)

New Editor

## JOURNAL OF SCHOOL PSYCHOLOGY

Editor: **RAYMOND S DEAN**, *Teachers College 521, Ball State University, Muncie, IN 47306, USA*

The *Journal of School Psychology* publishes original articles on research and practice relevant to the development of school psychology as both a scientific and an applied specialty. The journal also reviews tests, books, and other professional materials of interest to school psychologists.

### A Selection of Papers

Depression and reading ability in sixth-grade children, **H VINCENZI**.

Influence of treatment effectiveness information on the acceptability of classroom interventions,

**M BOONE VON BROCK & S N ELLIOTT**.

Differences between children with attention deficit disorder, children with specific learning disabilities, and normal children, **C KUEHNE et al.**

Identification of mental retardation by the SOMPA: nondiscriminatory or nonexistent? **C A HEFLINGER et al.**

Students' perception of control at school and problem behavior and attitudes, **D C SMITH et al.**

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Soc Sci Cit Ind, Psychol Abstr, PsycINFO, Except Child Ed Res, ERIC/CJIE, Chicorel Abstr to Reading and LD, Adolescent Mental Health Abstr*

New in 1987

## JOURNAL OF SCIENTIFIC EXPLORATION

A Publication of the Society for Scientific Exploration

Editor: **RONALD A HOWARD**, *Stanford University, Department of Engineering-Economic Systems, Terman Engineering Center, Stanford, CA 94305-4025, USA*

The *Journal of Scientific Exploration* publishes original, reviewed scientific papers that advance the study of anomalous phenomena. Papers may be submitted on any aspect of anomalous phenomena, including the following: (1) phenomena outside the current paradigms of one or more of the sciences such as the physical, psychological, biological, or earth sciences, (2) phenomena within the scientific paradigms, but at variance with current scientific knowledge, (3) the scientific methods used to study anomalous phenomena, (4) the study of the impact of anomalous phenomena on science and society in general.

### A Selection of Papers

Toward a quantitative theory of intellectual discovery (especially in physics), **R G FOWLER**.

Society and scientific anomalies: common knowledge about the Loch Ness Monster, **H H BAUER**.

Alterations in recollection of unusual and unexpected events, **D F HALL et al.**

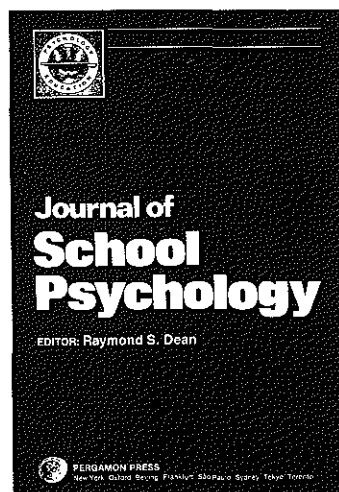
Grounds for dismissal: case studies of the rejection of scientific claims, **J S TREFIL**.

An analysis of the Condon Report on the Colorado UFO project, **P A STURROCK**.

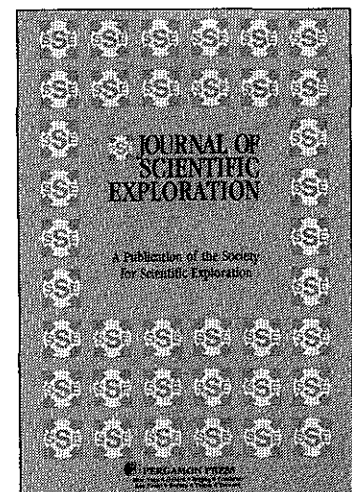
Analysis of a UFO photograph, **R F HAINES**.

Scientists selection of new research topics: UFO vs ETI, **D W SWIFT**.

Society for Scientific Exploration membership information available upon request. (Journal included as part of annual membership dues.)



**Subscription Information**  
1988: Volume 26 (4 issues)  
ISSN: 0022-1105 (600)



**Subscription Information**  
1988: Volume 2 (2 issues)  
ISSN: 0892-3310 (836)

# NEUROPHARMACOLOGY

Editors-in-Chief: **P B BRADLEY**, *The Medical School, Birmingham B15 2TJ, UK* and **E COSTA**, *FIDIA-Georgetown Institute for the Neurosciences, 3900 Reservoir Road, Washington, DC 20007, USA*

*Neuropharmacology* publishes original research papers concerned with the actions of drugs and other biologically active substances on the central and peripheral nervous systems in animals and man. Its principal aim is to further the understanding of the mechanisms of drug action on the nervous system and to facilitate communication between the different scientific disciplines, and between basic science and clinical investigation. The journal encourages articles on molecular pharmacology, electrophysiological pharmacology, cytochemical neuropharmacology, and behavioural pharmacology or psychopharmacology.

## A Selection of Papers

Effect of prolactin on tolerance and dependence to acute administration of morphine, **S RAMASWAMY** (India) & **J S BAPNA** (India).

Previous treatment with morphine and sensitization to the excitatory actions of opiates: dose-effect relationship, **M BARTOLETTI** (Italy) *et al.*

Actions of vasoactive intestinal polypeptide in superior cervical ganglion of the cat, **J MACHOVA** (Czechoslovakia).

Cholecystokinin-octapeptide-induced hypothermia in rats: dose-effect and structure-effect relationships, effect of ambient temperature, pharmacological interactions and tolerance, **L KAPAS** (Hungary) *et al.*

Modulation of neuronal activity in the hippocampus by 5-hydroxytryptamine and 5-hydroxytryptamine<sub>1A</sub> selective drugs, **S J PEROUTKA** (USA) *et al.*

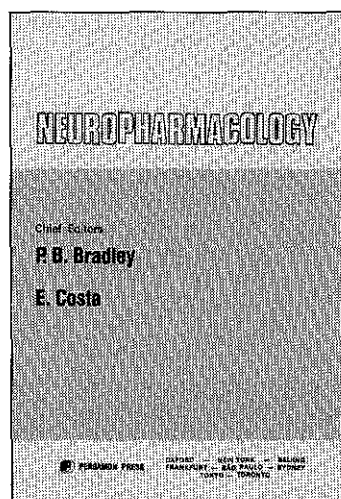
The central site of the sympatho-inhibitory action of 5-hydroxytryptamine in the cat, **J H COOTE** (UK) *et al.*

Stress-induced changes in the function of the parasympathetic nervous system are mimicked by blocking GABA in the CNS of the cat, **F D PAGANI** (USA) *et al.*

The THIP-induced model of bilateral synchronous spike and wave in rodents, **R G FARELLO** (USA) & **G T GOLDEN** (USA).

Effects of barbiturates on responses evoked by excitatory amino acids in slices of rat olfactory cortex, **G G S COLLINS** (UK) & **J ANSON** (UK).

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLARS, MEDLINE, Psychol Abs, PsycINFO, BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 27 (12 issues)  
ISSN: 0028-3908 (279)

# NEUROPSYCHOLOGIA

An International Journal

Editor: **M JEANNEROD**, *Laboratoire de Neuropsychologie Expérimentale, U. 94 de l'INSERM, 16, avenue du Doyen Lepine, 69500 Bron, France*

*Neuropsychologia* is an interdisciplinary journal of the neurological, medical and behavioral sciences. It is devoted to promoting the study and understanding of human behavior from a neurological point of view, and to integrating clinical, genetic and experimental contributions into its field.

Published in seven issues per annum, *Neuropsychologia* also presents papers focusing on the analysis of disorders of perception, action, intelligence, memory and language resulting from injury or disease of the cerebral cortex.

Special issues have dealt with subjects such as methods in neuropsychology, a selection visual attention. An upcoming issue will focus on memory.

## A Selection of Papers

Computer learning by memory-impaired patients: acquisition and retention of complex knowledge, **E L GLISKY** (Canada) *et al.*  
Hemispheric asymmetries in phonological processing, **G LUKATELA** (Yugoslavia) *et al.*

Prosopagnosia in two patients with CT scan evidence of damage confined to the right hemisphere, **E DeRENZI** (Italy).

Impairments in orienting to visual stimuli in monkeys following unilateral lesions of the superior sulcal polysensory cortex, **K E LUH** (USA) *et al.*

The laterality of mental image generation: a test with normal subjects, **M J FARAH** (USA).

The anatomy of unilateral neglect after right-hemisphere stroke lesions. A clinical/CT-scan correlation study in man, **G VALLAR** (Italy) & **D PERANI** (Italy).

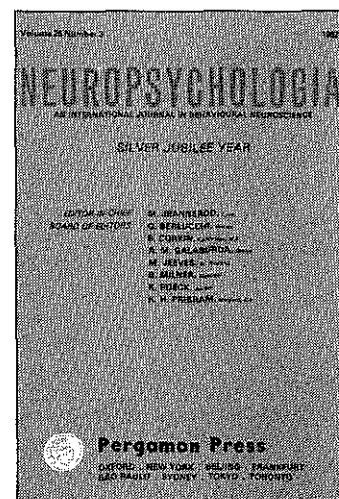
Spatial summation across the vertical meridian in hemianopsics: a test of blindsight, **C A MARZI** (Italy) *et al.*

Interhemispheric communication in a case of total visuo-verbal disconnection, **J LINDEBOOM** (The Netherlands) & **J A SWINKELS** (The Netherlands).

The development of tactile transfer of information, **K QUINN** (Australia) & **G GEFFEN** (Australia).

The influence of gender, handedness and head-turn on auditory asymmetries, **S DAWE** (New Zealand) & **M C CORBALLIS** (New Zealand).

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLARS, MEDLINE, Current Awareness in Biological Sciences (CABS), Psychological Abstracts, PsycINFO, BIOSIS Database*



**Subscription Information**  
1988: Volume 26 (7 issues)  
ISSN: 0028-3932 (247)

# JOURNAL OF STEROID BIOCHEMISTRY

Editors-in-Chief: **J R PASQUALINI** and **R SCHOLLER**,  
*Foundation for Hormone Research, 26 Boulevard Brune,  
75014 Paris, France*

The *Journal of Steroid Biochemistry* publishes papers dealing with new experimental or theoretical developments in areas related to steroids.

Subjects of interest include:

- Receptors and mechanisms of action of steroid hormones, and of related polypeptides and proteins such as ACTH, angiotensin, FSH, LH, chorionic gonadotropin, releasing hormones and prostaglandins
- Biosynthesis and metabolism of steroids including clinical investigations dealing with steroid biochemistry
- Methodological advances in the detection and measurement of steroids
- Structure, physico-chemical and chemical properties of steroids of biological interest
- Steroid hormones in development and differentiation, comparative endocrinology of steroids, biochemical and physiological effects of steroid action, microbiological transformation of steroids.

## A Selection of Papers

Steroid hormone antagonism and a cyclic model of receptor kinetics, **A MUNCK** (USA) & **N J HOLBROOK** (USA).

Analysis of the glucocorticoid antagonist action of dexamethasone 21-mesylate in HeLa S<sub>3</sub> cells,

**P P SCHEIBLE** (USA) *et al.*

Separation and identification of two components of an estrogen-responsive, calcium-dependent arginine esterase,

**K P HENRIKSON** (USA) *et al.*

Clinical use of unbound plasma cortisol as calculated from total cortisol and corticosteroid-binding globulin,

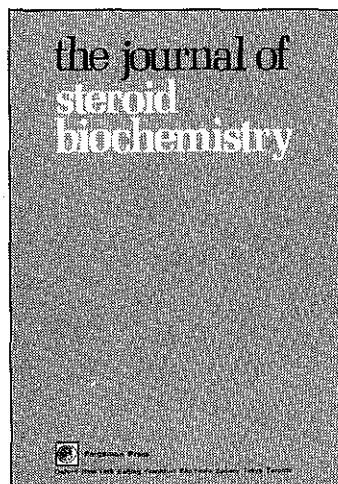
**J-L COOLENS** (Belgium) *et al.*

Identification of a mineralocorticoid receptor binding substance in the urine of patients with congenital adrenal hyperplasia,

**M LAND** (USA) & **S ULICK** (USA).

Occupied and unoccupied type II estrogen binding sites in human breast cancer, **M T P LOPES** (Brazil) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database, Excerpta Medica, Index Medicus, MEDLINE, PASCAL-CNRS Database*



## Subscription Information

1988: Volumes 29 - 31  
(18 issues)

# JOURNAL OF STORED PRODUCTS RESEARCH

Editor: **CHARLES E DYTE**, *Pest Infestation Control Laboratory, Ministry of Agriculture Fisheries & Food, London Road, Slough, Berkshire, UK*

This journal provides an international medium for the publication of original research results from laboratory and field studies dealing with the biology, ecology, physiology, behaviour, taxonomy, genetics and control of the insects, mites, fungi and other organisms associated with stored products. It also covers studies on the physical and chemical nature of the stored product environment which have relevance to these organisms and their control.

The *Journal of Stored Products Research* reflects the increasing interest in the scientific problems of infestation in stored food and their relevance to the world food shortage.

## A Selection of Papers

Synthesis of acetals and esters of propargyl propenyl and propyl alcohols and the bioassay of these and related compounds as fumigants against *Anastrepha suspensa* (Loew) larvae,

**J D WEBER** (USA) *et al.*

Egg production and development of *Callosobruchus rhodesianus* (Pic) and *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae) on several commodities at two different temperatures,

**D P GIGA** (UK) & **R H SMITH** (UK).

"Black distal area", a new mutation affecting wing pattern of *Ephestia kuehniella* Zeller (Lepidoptera: Pyralidae),

**F MAREC** (Czechoslovakia).

Simulation of temperature fluctuations near the surface of grain bulks, **R A LONGSTAFF** (Australia) &

**H J BANKS** (Australia).

Food consumption by larvae of three strains of *Callosobruchus maculatus* (Coleoptera: Bruchidae), **P F CREDLAND** (UK) & **K M DICK** (UK).

Laboratory evaluation of natural embelin as a grain protectant against some insect pests of wheat in storage,

**H CHANDER** (India) & **S M AHMED** (India).

Evaluation of insecticide dips as protectants of stored dried fish from dermestid beetle infestation, **P GOLOB** (UK) *et al.*

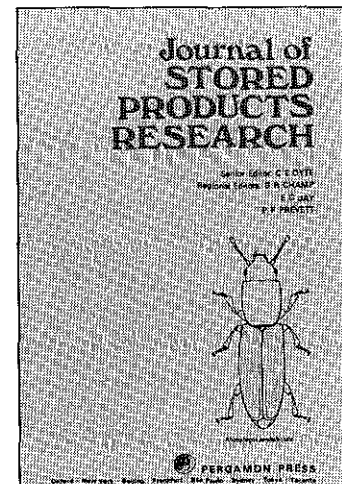
Studies on the susceptibility of groundnut varieties to infestation by *Plodia interpunctella* (Hubner) (Lepidoptera: Pyralidae),

**G N MBATA** (Nigeria).

Fate of chlorpyrifos-methyl on single wheat kernels,

**P H ADAMS** (UK).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 24 (4 issues)  
ISSN: 0022-474X (306)

# NEUROTOXICOLOGY AND TERATOLOGY

(Formerly *Neurobehavioral Toxicology and Teratology*)

Editor-in-Chief: **ZOLTAN ANNAU**, *Department of Environmental Health Sciences, The Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205, USA*

*Neurotoxicology and Teratology* is the leading source for researchers studying neural toxicity, which in recent years has become one of the most quickly growing areas of environmental health. The journal reports results on the consequences of prenatal exposure to neurotoxic chemicals, including both environmental pollution and self-inflicted intoxication, and, increasingly, the role of underlying biological mechanisms. Given the high interest in the more fundamental questions of neurotoxicology, the Editor-in-Chief has appointed section editors covering neurochemistry, neuropathology and neurophysiology. The new name of the journal *Neurotoxicology and Teratology* represents the incorporation of behavioral toxicology into the field of neurotoxicology as a whole.

## A Selection of Papers

Developmental and longterm neurobehavioral toxicity of low level *in-utero* cadmium exposure in rats, **M M ALI** *et al.*  
Effects of iontophoretic application of trimethyltin on spontaneous neuronal activity in mouse hippocampal slices, **D L ARMSTRONG** *et al.*

Sulfolane effects on audiogenic, pentylenetetrazol and after-discharge seizure activity, **L J BURDETTE** & **R S DYER**.

Pre- and postnatal lead-exposure in monkeys: effects on activity and learning set formation, **H LILIENTHAL** *et al.*

Prenatal diazepam: chronic anxiety and deficits in brain receptors in mature rat progeny, **G T LIVEZEY** *et al.*

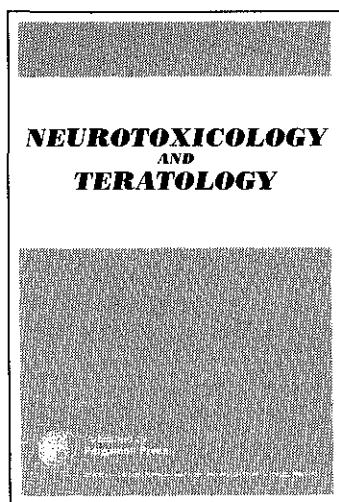
Altered pyramidal cell dendritic development in the motor cortex of lead intoxicated neonatal rats. A Golgi study, **D LORTON** & **W J ANDERSON**.

Behavioral correlates of soman-induced neuropathology: deficits in DRL acquisition, **J H McDONOUGH Jr** *et al.*

Behavioral evaluation of perinatal PCB exposure in rhesus monkeys: fixed-interval performance and reinforcement-omission, **P C MELE** *et al.*

Vasopressin and vasopressin-antagonists applied to neonatal Wistar rats: effects on body and brain development and water metabolism, **F G M SNIJDEWINT** & **G J BOER**.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Science Citation Index, CABS, Index Medicus, Excerpta Medica, MEDLINE, MEDLARS, BIOSIS Database*



**Subscription Information**  
1988: Volume 10 (6 issues)  
ISSN: 0892-0362 (832)  
Formerly published by  
ANKHO International Inc.

# NEW IDEAS IN PSYCHOLOGY

An International Journal of Innovative Theory in Psychology

Editors-in-Chief: **PIERRE MOESSINGER**, *Rue des Maraichers 46, 1205 Geneva, Switzerland*, **JOHN BROUGHTON**, *Department of Psychology, Box 33, Teachers College, Columbia University, New York, NY 10027, USA* and **RICHARD KITCHENER**, *Department of Philosophy, Colorado State University, Fort Collins, CO 80523, USA*

There is a growing dissatisfaction with fragmentation in theoretical psychology and without doubt there is a felt need for a journal containing articles which aim to integrate these fragmented ideas and theories. Since the usual methods and perspectives have failed to achieve such integration, common sense suggests that we try new and more daring hypotheses. We place particular emphasis on the fact that informed discussion of psychological theories needs to be interdisciplinary. We are intrigued by the possibility of facilitating a rapprochement between traditions of thought that currently ignore each other. We also anticipate that fresh ideas may come from research in fields indirectly related to psychology. *New Ideas in Psychology* is devoted to innovative theory in psychology. It does this in several ways, by dealing with how new ideas develop: conceptual issues in theory construction, scientific creativity and growth of knowledge; exploratory theorizing: broad problems in any field of psychology, focusing on new and plausible hypotheses; ideas in progress: heuristic insights, suggestive or intriguing speculations.

*New Ideas in Psychology* provides a forum for theorizers. It is open to letters, comments or debate, and puts a special emphasis on seminal and controversial ideas. Empirical papers are welcome, but only as long as they focus on conceptual issues and are theoretically creative.

## A Selection of Papers

The trouble with wholes and parts, **R ARNHEIM**.

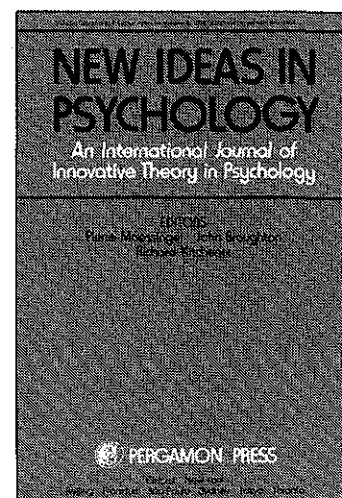
Social identity: cognitive dissonance or paradox? **L GARAI**.

Marxist perspectives on abnormality, **R SMITH**.

Breaking the myth that behavior is a trivial science, **S RAKOVER**.

Multiple personality and the concept of a person, **G GILLETT**.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, CABS, Psychol Abstr, PsycINFO*



**Subscription Information**  
1988: Volume 6 (3 issues)  
ISSN: 0732-118X (678)

# JOURNAL OF THERMAL BIOLOGY

Editors: **K BOWLER**, *Department of Zoology, University of Durham, Durham DH1 3LE, UK* and **J E HEATH**, *Department of Physiology and Biophysics, University of Illinois, Urbana, IL 61801, USA*

The journal publishes results of work in which the central theme is the mechanisms by which temperature affects living organisms. It is wide in scope and includes studies at the biochemical and physiological levels and also at the level of the organism. The following are examples of the subject areas covered:

- Studies on the mechanisms involved in acclimation and acclimatization to temperature in plants and animals, including the phenomena of hibernation, dormancy, aestivation and diapause
- The mechanisms of cellular heat and cold injury, and of the resistance of organisms to extremes of temperature
- Effects of temperature on growth and development, ageing and life-span
- Effects of temperature on micro-organisms
- Behavioural and physiological regulation of body temperature
- Medical applications of hypo- and hyperthermy, excluding descriptive clinical studies and case-histories
- Review articles.

## A Selection of Papers

The effect of temperature changes on the spontaneous activity in the neural ganglia of the cockroach, *Periplaneta americana*, **J JANISZEWSKI** (Poland).

Circadian change of heat loss in response to change in core temperature in rats, **O SHIDO** (Japan) *et al.*

Environmental stress after atropine treatment, **M A KOLKA** (USA) *et al.*

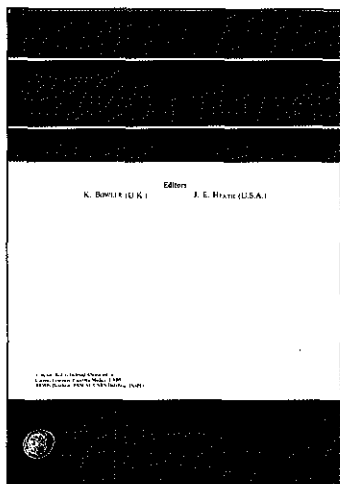
Temperature effects on evoked potentials of hippocampal slices from noncold-acclimated, cold-acclimated and hibernating hamsters, **M P THOMAS** (USA) *et al.*

Selected body temperatures in the lizard *Lacerta vivipara*: variation within and between populations,

**R VAN DAMME** (Belgium) *et al.*

Muscle temperature and muscle metabolism during short-term exercise in the goat, **G FEISTKORN** (FRG) *et al.*

**Indexed/Abstracted in:** *Chemical Abstracts, Current Contents, Excerpta Medica, CABS, BIOSIS Database, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 13 (4 issues)

# LANGUAGE & COMMUNICATION

An Interdisciplinary Journal

Editor: **ROY HARRIS**, *University of Oxford, Worcester College, Oxford OX1 2HB, UK*

This journal is unique in that it provides a forum devoted to the discussion of topics and issues in communication which is of interdisciplinary significance. It publishes contributions from researchers on all fields relevant to the study of verbal and non-verbal communication. The investigation of language and its communicational functions are treated as a concern shared in common by those working in anthropology, the arts, artificial intelligence, education, ethology, linguistics, physiology, philosophy, psychology and the social sciences.

Emphasis is placed on the implications of current research for establishing common theoretical frameworks within which findings from different areas of study may be accommodated and interrelated.

By focusing attention on the many ways in which language is integrated with other forms of communicational activity and interactional behaviour, it is intended to explore ways of developing a science of communication which is not restricted by existing disciplinary boundaries.

## A Selection of Papers

Issues in linearization: prolegomena for a general theory of communication, **W H EDMONDSON** (UK).

Saussurean linguistics and the problem of meaning - from dynamic statics to static dynamics, **B NERLICH** (UK).

Language, dialect and society, **M YAEGER-DROR** (Canada).

Conversation as a system of social interaction,

**R MYLLYNIEMI** (Finland).

Do you understand? Criteria of understanding in verbal interaction, **T J TAYLOR** (USA).

Passing sentence, **C SLATER** (UK) & **P WEXLER** (UK).

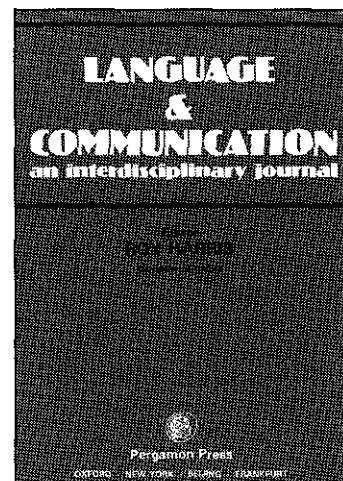
Belief in rumor and likelihood of rumor transmission,

**R L ROSNOW** (USA) *et al.*

The aftermath of error occurrence: psycholinguistic evidence from cut-offs, **T BERG** (FRG).

The need for new approaches to social class analysis in sociolinguistics, **J R RICKFORD** (USA).

**Indexed/Abstracted in:** *Current Contents, Psychol Abstr, Psych INFO, Sociol Abstr*



**Subscription Information**  
1988: volume 8 (4 issues)  
ISSN: 0271-5300 (616)



# NUCLEAR GEOPHYSICS

A Journal of Nuclear Techniques in the Earth and Environmental Sciences, Minerals Exploration, Mining and Process Control.

(International Journal of Radiation Applications and Instrumentation, Part E)

Editor-in-Chief: COLIN G CLAYTON, Consultant, Argoed Hall, Tregaron, Dyfed SY25 6JR, Wales, UK

Nuclear Geophysics publishes original scientific and technological papers on the development and application of nuclear techniques in the geosciences and in those areas of economic activity involved in the use of earth materials.

The principal aim of the journal is to bring together the common science and technologies which are to be found in studies of the earth's crust, the hydrosphere and the atmosphere with the purpose of predicting earthquakes, climatic changes and pollution transfer. The journal is particularly focussed on the development and use of methods for exploration for water, oil, gas, coal, metalliferous, non-metalliferous and industrial minerals and on the extraction, transport, preparation and use of these materials.

Nuclear techniques include the development and use of alpha and beta particles, X-rays, gamma rays, neutrons and other nuclear particles from radioisotope, accelerator and reactor sources as well as from the natural environment. Contributions dealing with radiation detectors, associated instrumentation and computer codes are encouraged.

## A Selection of Papers

New evidence on the composition of mineral grains of native gold, C S ERASMUS (South Africa) *et al.*

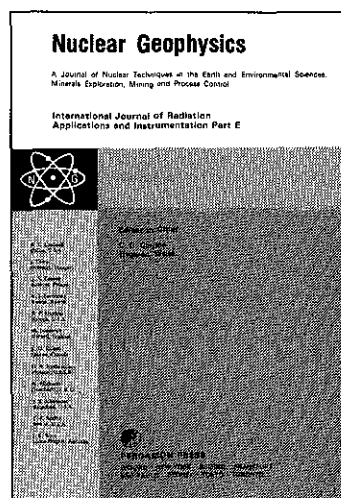
A prototype bauxite analyser based on fast-neutron-activation analysis, R J HOLMES (Australia) *et al.*

Dynamic trial of an iron ore analyser based on pair production, J A AYLMEYER (Australia) *et al.*

On-line measurement of the stone content of stone/coal loads using an X-ray tube source, J S WYKES (UK) *et al.*

Simulation of geological profiles and gamma-ray logs, J A CZUBEK (Poland).

Indexed/Abstracted in: *Current Contents*



**Subscription Information**  
1988: Volume 2 (4 issues)  
ISSN: 0886-0130 (797)  
Also available as Part E of  
*International Journal of  
Radiation Applications  
and Instrumentation.*

# NUCLEAR MEDICINE AND BIOLOGY

(International Journal of Radiation Applications and Instrumentation Part B)

A Companion Journal to *Applied Radiation and Isotopes*

Editor-in-Chief: WILLIAM C ECKELMAN, The Squibb Institute for Medical Research, PO Box 191, New Brunswick, NJ 08903, USA

Nuclear Medicine and Biology publishes papers describing the *in vitro* or *in vivo* use of radioactive substances as radiotracers, radiopharmaceuticals or therapeutic agents in any application of radiation to medicine. Papers dealing with aspects of nuclear biology or radiation biology are also featured, as well as studies detailing radiation effects or elucidating carcinogenic mechanisms.

## A Selection of Papers

Regional cerebral uptake and retention of  $^{99m}\text{Tc}$ -tetramethyl- and pentamethyl-propyleneamine oximine chelates, S B CHAPLIN *et al.*

A Direct comparison of the brain uptake and plasma clearance of  $\text{N-}^{14}\text{C}$  methylspiroperidol and  $^{18}\text{F}$  *N*-methylspiroperidol in baboon using PET, J S FOWLER *et al.*

Design of bifunctional radiopharmaceutical for the development of  $^{99m}\text{Tc}$  complexes for myocardial imaging agents, T HOSOTANI *et al.*

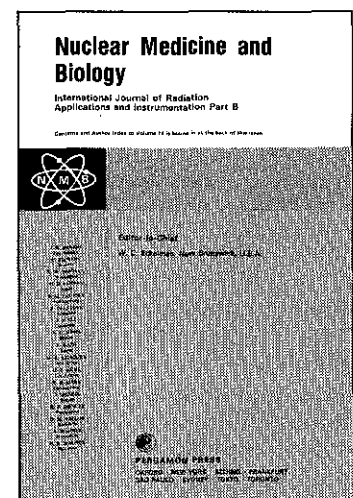
Influence of complex charge and size on the uptake of  $^{99m}\text{Tc}$ -diphosphonates in osteogenic tissue, T C PINKERTON *et al.*  
An antibody-desferrioxamine conjugate labelled with  $^{67}\text{Ga}$ , M C WARD *et al.*

Biodistribution of *N*-alkyl and *N*-fluoroalkyl derivatives of spiroperidol; radiopharmaceuticals for PET studies of dopamine receptors, M J WELCH *et al.*

Properties of multilamellar liposomes containing  $^{99m}\text{TcO}_4^-$ : effect of distearoylphosphatidylcholine to sphingomyelin ratio, M R ZALUTSKY *et al.*

Abstracts of the NATO Advanced Study Institute. Radiolabelled monoclonal antibodies for imaging and therapy: potential, problems, and prospects.

Indexed/Abstracted in: *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL/CNRS Database*



**Subscription information**  
1988: Volume 15 (6 issues)  
ISSN: 0886-0130 (363)  
Also available as Part B of  
*International Journal of  
Radiation Applications  
and Instrumentation.*

## LEUKEMIA RESEARCH

Editors: **TERRY HAMBLIN**, Royal Victoria Hospital, Shelley Road, Boscombe, Bournemouth BH1 4J9, UK and **PETER REIZENSTEIN**, Karolinska Hospital, Division of Hematology, 104 01 Stockholm 60, Sweden

*Leukemia Research* bridges the gap between basic research and clinical application. The journal publishes articles which further the understanding of leukemia and related diseases. Studies of normal and leukemic hemopoiesis, biochemistry, cell biology, immunology and molecular biology are found alongside those covering clinical and epidemiological aspects. Single case reports are accepted if they introduce new concepts or add significantly to the understanding of the disease.

### A Selection of Papers

Percentage of S-phase cells in bone marrow aspirates, biopsy specimens and bone marrow aspirates corrected for blood dilution from patients with acute leukemia,

**L P COLLY** (The Netherlands) *et al.*

Recognition of T-cell murine leukemia by bacteriocin (colicin); correlation with transplantation experiments,

**M MITTELMAN** (Israel) *et al.*

Radiation leukemia virus and X-irradiation induce in C57BL/6 mice two distinct T-cell neoplasms: a growth factor-dependent lymphoma and a growth factor-independent lymphoma,

**M HAAS** (USA) *et al.*

Ph<sup>1</sup>-positive CML-derived myeloid-monocytoid precursor cell line producing substance(s) that stimulates normal CFU-C,

**T MORI** (Japan) *et al.*

Expression of the HT462 antigen on fresh leukemic T cells and on cells of HTLV-I infected lines, **T HATTORI** (Japan) *et al.*

Differentiated HL-60 promyelocytic leukemia cells produce a factor inducing differentiation, **B DJULBEGOVIC** (UK) *et al.*

Autologous bone marrow transplantation in acute myeloid leukemia after *in vitro* purging with an anti-lacto- *N*-fucopentaose III antibody and rabbit complement,

**D FERRERO** (Italy) *et al.*

Production of human pluripotent progenitor cell colony stimulating activity (CFU-GEMM<sub>CSA</sub>) in patients with myelodysplastic syndromes, **S MERCHAV** (Israel) *et al.*

Day 4 bone marrow aspirate for prediction of resistance to induction chemotherapy in acute myeloid leukemia,

**E ARCHIMBAUD** (France) *et al.*

Expression of HLA class II determinants by normal and chronic myeloid leukemia progenitors, **W PIACIBELLO** (Italy) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, BIOSIS Database, PASCAL-CNRS Database*

## Leukemia Research

Editors:  
Terry Hamblin UK Peter Reizenstein Sweden



Pergamon Press  
Oxford, New York, Beijing  
Frankfurt, São Paulo, Sydney, Tokyo, Toronto

**Subscription Information**  
1988: Volume 12 (12 issues)

## LIBRARY ACQUISITIONS: PRACTICE & THEORY

Editor: **SCOTT R BULLARD**, Head, Acquisitions Department, Kent State University Libraries, Kent, OH 44242, USA

*Library Acquisitions: Practice & Theory* provides a forum for the exchange of ideas and experiences among members of the library acquisitions, collections management and bookselling communities throughout the world. It is a comprehensive publication designed to bring together many of the specializations within the broad areas of library acquisitions and collection management, including, but by no means limited to, books and serials in academia, public, school and special libraries; government publications; gifts and exchanges; microforms and other nonprint media, such as videodiscs and computer software; pertinent library automation projects. In reflecting the broad practical and theoretical foundations of the discipline, *LAPT* presents on-the-job experiences of librarians and booksellers as well as more theoretical treatments.

### A Selection of Papers

The relationship between loans and in-house use of books in determining a use-factor for budget allocation, **L M LANE**.

Collection development in an African academic library during economic depression: the University of Lagos library experience, **S O OLANLOKUM & H S ISSAH**.

The scientist is appointed an Editor: adjusting the journal collection at stages in a client's career, **T STANKUS**.

Librarians, publishers, and vendors: looking for Mr Goodbuy, **W V DOLE**.

The cost is more than that elegant dinner: your ethics are at steak, **C M BOISSONNAS**.

**Indexed/Abstracted in:** *Current Contents, Lib Lit, LISA, Computer & Info Systems Abstr*

## Library Acquisitions: Practice & Theory

**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0264-6408 (202)

# OCEAN ENGINEERING

An International Journal of Research and Development

Co-Editors-in-Chief: **MICHAEL E McCORMICK**, *Department of Naval Systems Engineering, US Naval Academy, Annapolis, MD 21402, USA* and **RAMESWAR BHATTACHARYYA**, *US Naval Academy, Annapolis, MD 21402, USA*

*Ocean Engineering* provides a medium for the publication of original research and development work in this field. In recognition of the fact that many research and development workers are now entering the area, occasional review articles by leading authorities are published.

Areas covered in *Ocean Engineering* include: • Design and Building of Structures (including ships) • Submarine Soil Mechanics • Coastal Engineering • Properties and Fabrication of Materials • Stress Analysis and Hydrodynamic Properties of Shells • Ocean Energy • Underwater Instrumentation • Power and Propulsion Systems • Aquacultural Engineering • Underwater Acoustics • Marine Resources.

## A Selection of Papers

A design method of predicting second order wave diffraction caused by large offshore structures, **M RAHMAN** (Canada).

Interference effects between flexible cylinders in waves, **A G ABUL-AZM** (USA) & **A N WILLIAMS** (USA).

Assessing wind wave spectrum representations in a shallow lake, **P C LIU** (USA).

Wave loading on axisymmetric bodies using axisymmetric hybrid integral equation method, **M M F YUEN** (Hong Kong) & **F P CHAU** (UK).

Approximate wave force analysis on rectangular caissons, **M RAHMAN** (Canada).

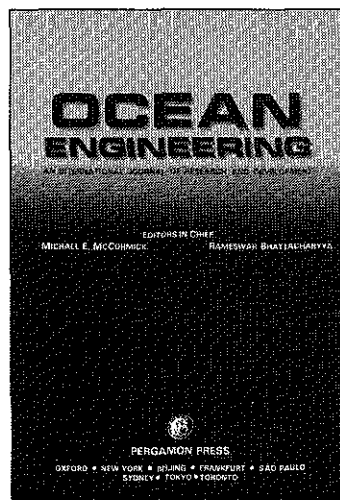
Sealevel changes associated with hurricane "Gloria", **R J SEYMOUR** (USA) & **D CASTEL** (USA).

A multiscale analysis of nonlinear rolling, **A CARDI** (Italy) & **G TRINCAS** (Italy).

Behaviour of vertical bodies of revolution in waves, **K KOKKINOWRACHOS** (FRG) *et al.*

Calibration of visual observations of wave period, **C GUEDES SOARES** (Portugal).

**Indexed/Abstracted in:** *Current Contents, Shock & Vibration Digest, Engng Ind Monthly & Author Index, PASCAL/CNRS Database, INSPEC, Aquatic Sciences & Fisheries Abstracts, Oceanic Abstracts, ISMEC*



**Subscription Information**  
1988: Volume 15 (6 issues)  
ISSN: 0029-8018 (320)

# OMEGA

The International Journal of Management Science

Chief Editor: **SAMUEL EILON**

Associate Editors: **R J BETTS** and **R B FLAVELL**, *Department of Management Science, Imperial College, London SW7 2BX, UK*

*Omega* reports on developments in management, including the latest research results and applications. Original contributions and review articles describe the state of the art in specific fields or functions of management, while there are shorter critical assessments of particular management techniques. Other features of the journal are the *Memoranda* section for short communications and *Feedback*, a correspondence column.

*Omega* is both stimulating reading and an important source for practising managers, specialists in management services, operational research workers and management scientists, management consultants, academics, students and research personnel.

## A Selection of Papers

Strategic implications of objectives - growth, profit or both?, **M HIRANO** (Japan).

The use of advanced management techniques in R & D, **K M WATTS** (UK) & **J C HIGGINS** (UK).

A non-queueing model to predict teller requirements in retail bank branches, **J M DASCHBACH** (USA) *et al.*

On Bayesian composite forecasting, **D A BESSLER** (USA) & **P J CHAMBERLAIN** (USA).

Priority dispatching rules in an assembly shop, **D SCULLI** (Hong Kong).

Manpower requirements of scientists and engineers in high technology industries, **R H BEZDEK** (USA).

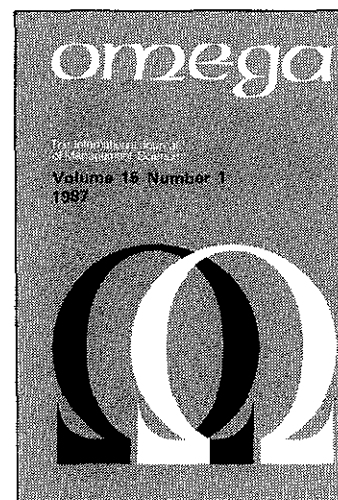
Comparison of heuristics for flow shop sequencing, **S TURNER** (USA) & **D BOOTH** (USA).

Electrical power distribution system with switching constraints, **V UDAYABHANU** (USA).

Production planning in the gem diamonds industry in India, **A CHANDAWARKAR** (USA).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Management Contents, Legal Contents, INSPEC*



**Subscription Information**  
1988: Volume 16 (6 issues)  
ISSN: 0305-0483 (375)

# MAGNETIC RESONANCE IMAGING

An International Journal of Basic Research and Clinical Applications

The Official Publication of the Society for Magnetic Resonance Imaging

Co-Editors: **JOHN C GORE**, *Department of Diagnostic Imaging, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510, USA* and **FRANCIS W SMITH**, *Department of Nuclear Medicine, Aberdeen Royal Infirmary, Foresterhill, Aberdeen, Scotland, UK*

*Magnetic Resonance Imaging (MRI)* is an international multi-disciplinary journal for both clinicians and basic scientists. Published six issues per annum, the journal covers clinical, physical and life science investigations relating to the development and use of magnetic resonance methods and instrumentation, including both imaging and spectroscopic techniques and their applications.

As the official journal of the Society for Magnetic Resonance Imaging, *MRI* has an international readership and has developed a reputation as the leading specialized journal in the field of magnetic resonance in biomedicine.

## A Selection of Papers

NMR in cancer - I. High resolution spectroscopy of tumors, **H D SOSTMAN** *et al.*

The short TI inversion recovery sequence - an approach to MR imaging of the abdomen, **G M BYDDER** *et al.*

Susceptibility artefacts in NMR imaging, **K M LUDEKE** *et al.*  
Flourine-19 NMR spectroscopy and imaging investigations of myocardial perfusion and cardiac function,

**R L NUNNALLY** *et al.*

Magnetic resonance imaging of the brain in children, **J M PENNOCK** *et al.*

Applications of magnetic resonance imaging in diseases of the pediatric central nervous system, **R A ZIMMERMAN & L T BILANIUK.**

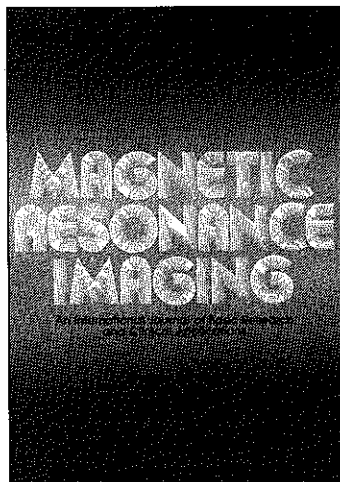
Magnetic resonance imaging in obstetrics and gynecology, **S MCCARTHY.**

<sup>1</sup>HMR Spatially resolved spectroscopy of human tissues *in situ*, **P R LUYTEN & J A DEN HOLLANDER.**

High resolution MRI: imaging anatomy of the lumbosacral spine, **L P CLARKE** *et al.*

Maximizing signal-to-noise and contrast-to-noise ratios in flash imaging, **R E HENDRICK** *et al.*

**Indexed/Abstracted in:** *Current Contents/Clinical Medicine, CABS, BIOSIS Database, Excerpta Medica, Electron & Commun Abstr, Chemical Abstr, INSPEC Database, Index Medicus, MEDLINE, MEDLARS, Index of European Radiological Journals*



## Subscription Information

1988: Volume 6 (6 issues)

# MANAGEMENT AND MARKETING ABSTRACTS

Editorial Team: **MARIE RUSHTON, DIANA DEAVIN** and **KATHY YOUNG**, *PIRA, Research Association for the Paper and Board, Printing and Packaging Industries, Randalls Road, Leatherhead, Surrey KT22 7RU, UK*

Management and marketing academics and executives need to know the latest developments in management thinking and practice. Every month *Management and Marketing Abstracts* provides an up-to-date surveillance of the world's specialist literature in this area. It is derived from *PIRA*'s extensive bibliographic and database resources and is also available online through Pergamon ORBIT InfoLine.

The journal keeps readers abreast of developments by: regularly scanning over 200 major business journals, conference proceedings, reports and selecting items of interest; presenting the information in a readily manageable and readable form under 25 separate headings; providing an index to pinpoint items of interest;

The 25 separate headings are:

General Management; Management Techniques; Financial Management; Resource Management; Production Management; Information Technology; Management and Change; International Management; Organization and Administration; Personnel; Industrial Relations; Education and Training; Research and Development; Marketing; Advertising and Promotion; Sales; Physical Distribution; Customer Relations; Public Relations; Forecasting; Corporate Planning; Manpower Planning; Economics; Behavioural Sciences; Book Section.

Other information services available from the database include: Personalized topic profiles; Online searching; Magnetic tape leasing. Full details will be supplied on request.



## Subscription Information

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# OUTLOOK ON AGRICULTURE

An International Review of Agricultural Science and Technology

Editor: **TREVOR I WILLIAMS**, Pergamon Press, Headington Hill Hall, Oxford OX3 0BW, UK

Assisted by an advisory Editorial Panel of eminent agriculturalists

*Outlook on Agriculture* covers the whole field of modern scientific agriculture. It reviews, on a global basis, the principal food and industrial crops and their management in health and disease; soil science; agrochemicals; agricultural engineering; animal husbandry; energy utilization; economics; education; history. The guiding principle in the choice of articles is the intrinsic interest and importance of the subject and the authority of the writer. In addition, the journal publishes critical reviews of important books in the agricultural field.

*Outlook on Agriculture* is essential reading for all those concerned with agriculture in a world where efficient production and high yields are increasingly dependent on the progress and application of science. This includes those particularly concerned with the problems of introducing new techniques into the many communities in which food is still produced by traditional methods on small family holdings.

## A Selection of Papers

Grain legumes in UK agriculture, **M C HEATH** (UK).

Soil taxonomy: an overview, **J E WITTY** (USA) & **R W ARNOLD** (USA).

High technology options for sheep shearing - II. Automated mechanical shearing, **P R W HUDSON** (Australia).

Sorghum - present status and future potential,

**L R HOUSE** (Zimbabwe).

The role of white clover in United Kingdom pastures, **J FRAME** (UK).

Cocoa pod diseases: causal agents and control,

**H C EVANS** (UK) & **C PRIOR** (UK).

International networks and their potential contribution to crop and soil management research,

**D J GREENLAND** (Philippines) *et al.*

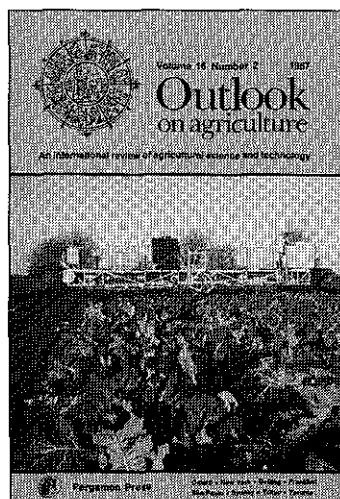
Interspecific hybridization in sunflowers: an illustration of the importance of wild genetic resources in plant breeding,

**J E LAFERRIERE** (USA).

New technology for low-income farmers in developing countries,

**J BAY-PETERSEN** (UK).

**Indexed/Abstracted in:** *Current Contents*, *Chemical Abstracts*, *Current Awareness in Biological Sciences (CABS)*



## Subscription Information

1988: Volume 17 (4 issues)

ISSN: 0030-7270 (668)

# PAINT TITLES

Published by the Paint Research Association

Editor: **S C HAWORTH**, Paint Research Association, Waldegrave Road, Teddington, Middlesex TW11 8LD, UK

A weekly, rapid publication magazine, *Paint Titles* provides an alerting service listing some 200 article titles in each issue arranged under 21 section headings for easy reference. Most of the articles mentioned are subsequently abstracted and will appear on the *World Surface Coatings Abstracts* database.

Where necessary titles are expanded to give extra information, but the essence of the publication is to provide an alerting service of new articles of interest to the paint and surface coatings industry.

## Contents

Pigments, extenders and dyestuffs.

Solvents and additives.

Synthetic resins.

Paints and coatings: general.

Paints and coatings: waterborne.

Powder coatings.

Printing materials.

Manufacturing machinery and processes.

Pretreatment and application.

Weathering corrosion and fouling.

Physical properties and tests.

Chemical properties and analysis.

Industrial hazards.

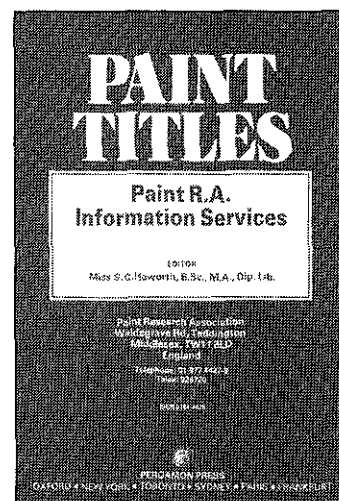
Pollution; waste treatment.

Management marketing and information.

Market news and statistics.

Adhesives, sealants.

Patent supplement.



## Subscription Information

1988: Volume 18 (52 issues)

ISSN: 0144-4425 (729)

# MATERIALS RESEARCH BULLETIN

Editor-in-Chief: **HEINZ K HENISCH**, *The Pennsylvania State University, Materials Research Laboratory, University Park, PA 16802, USA*

*Materials Research Bulletin* is an international 'rapid publication' journal reporting research on crystal growth, materials preparation and characterization. i.e. deals with the structure and properties of electronically, optically or mechanically interesting solids considered and discussed specifically as a function of the preparational parameters. It covers such topics as the synthesis of new phases, high pressure and high temperature phase changes, crystal growth mechanisms and techniques, defect structure analysis, the preparation and structure of non-crystalline solids and composite materials.

## A Selection of Papers

The Sr-poor part of the phase system  $\text{SrO-TiO}_2\text{-Ga}_2\text{O}_3$  at 1300°C, a crystallographic and leaching study,

**C H DE VREUGD** (The Netherlands) *et al.*

Sur une nouvelle forme de GaS, rhomboédrique 3R métastable formation et étude structurale, **M P PARDO** (France) &

**J FLAHAUT** (France).

Crystal structure and superconductivity of new ternary MTGe germanides (M=Ti, Zr, Hf and T=Ru, Os, Rh, Ir), **WANG XIAN ZHONG** (China) *et al.*

Characterization of guest molecules adsorbed on zeolites of known structure by combined X-ray power profile refinements and conventional difference-fourier techniques. Part I - Localization of the benzene molecule in a pentasil type zeolite,

**B F MENTZEN** (France).

Reactive atmosphere processing of oxides (Part II),

**R C PASTOR** (USA) & **L E GORRE** (USA).

Investigation of vacuum deposition of  $\text{Bi}_2\text{Te}_3$  - based thermoelectric materials, **K BORKOWSKI** (Poland) &

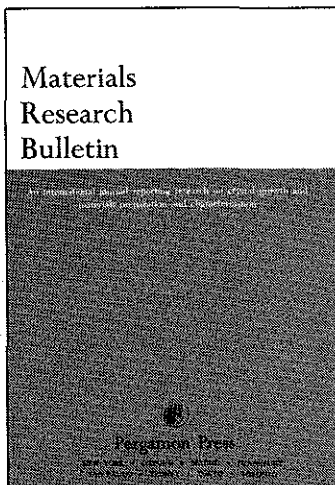
**J PRZYLUSKI** (Poland).

Luminescence properties of  $\text{Ce}^{3+}$  and  $\text{Tb}^{3+}$  in a new family of boron-rich alkaline earth rare earth borates,

**FU WEN TIAN** (France) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Cambridge Sci Abstracts, Engng Ind Monthly & Author Index, Energy Data Base, Energy Res Abstracts, IBZ, INSPEC, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 23 (12 issues)  
ISSN: 0025-5198 (print)

# Expanded Aims and Scope

## MATHEMATICAL AND COMPUTER MODELLING

(formerly *Mathematical Modelling*)

An International Journal

Affiliated with the International Association for Mathematical and Computer Modelling

Editors-in-Chief: **E Y RODIN**, *Department of Systems Science and Mathematics, Box 1040, Washington University, St Louis, MO 63130, USA* and **X J R AVULA**, *Department of Engineering Mechanics, University of Missouri-Rolla, Rolla, MO 65401, USA*

*Mathematical and Computer Modelling* provides a medium of exchange for the diverse disciplines utilizing mathematical modelling as either a theoretical or working tool. Equal attention is given to the mechanics, methodology and theory of modelling in an integrative form. While the unifying aspect of the journal is its adherence to mathematical models, it seeks diversity by being concerned with a variety of disciplines, including engineering, biological, medical, environmental, social, behavioural and other sciences. Both theoretical and applied works which employ mathematical modelling will be considered for publication. Papers dealing with experiments shall be considered when the results are presented as an integral part of the modelling process. From 1988 a new permanent section, *New Educational Mathematical Modelling Modules*, will be started which will provide both a two-dimensional variety of educational modules, and a medium of publication for professors' mathematical models which have been developed for teaching

## A Selection of Papers

A new computational approach for inversion of very large matrices, **G ADOMIAN** (USA) & **R RACH** (USA).

A mathematical model for the 3-dimensional ocean sound propagation, **DING LEE** (USA) & **W L SIEGMANN** (USA).

Explicit and numerical methods for finding optimal therapeutics, **Y CHERRUAULT** (France).

The effect of variability in a closed-loop conveyor system, **B POURBABAI** (USA).

The ballot problem, **B A CIPRA** (USA).

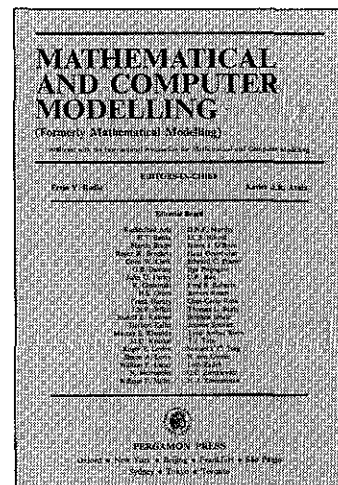
The accumulation of decaying wastes in a model oceanic gyre, **J P O'KANE** (Eire).

Irreversible thermodynamics, quantum mechanics and intrinsic time scales, **I W RICHARDSON** (USA) &

**A H LOUIE** (Canada).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Automatic Subject Citation Alert, CABS, Compu Math Cit Ind, Math. Reviews, Oper Res Mgmt Sci, SCISEARCH, Zentralblatt für Mathematik*



**Subscription Information**  
1988: Volumes 10 & 11  
(13 issues)  
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# PEPTIDES

An International Journal

Editor-in-Chief: **ABBA J KASTIN**, VA Medical Center and Tulane University School of Medicine, 1601 Perdido Street, New Orleans, LA 70146, USA

Appearing bimonthly, *Peptides* is an international journal presenting original contributions on the chemistry, biochemistry, neurochemistry, endocrinology, gastroenterology, physiology, and pharmacology of peptides, as well as their neurological, psychological and behavioral effects.

*Peptides* emphasizes all aspects of peptide research and covers investigations of these proteins in plants, insects, lower vertebrates, animals and humans. Some examples of topics which contributors have recently discussed include: the activity of atrial natriuretic peptide in the cardiovascular system; the role of peptides in satiety and appetite suppression; the action of peptides in the gastrointestinal tract; the role of the brain peptides in both normal neurological function and in mental disorders.

In addition to original articles, *Peptides* publishes brief communications and reviews of areas of current interest. Given the rapid growth of peptide research by scientists in a broad spectrum of disciplines, *Peptides* is a key source for investigators in the field and the libraries serving them.

## A Selection of Papers

Somatostatin and CCK-8 modulate release of striatal amino acids: role of dopamine receptors, **S P ARNERIC** *et al.*

Distribution of galanin immunoreactivity in the genitourinary tract of man and rat, **F E BAUER** *et al.*

Synthetic peptides from C-reactive protein containing tuftsin-related sequences, **R BUCHTA** *et al.*

The ACTH-(4-9) analog ORG 2766 and desglycinamide<sup>9</sup>-(Arg<sup>8</sup>)-vasopressin reverse the retrograde amnesia induced by disrupting the circadian rhythms in rats, **M FEKETE** *et al.*

Met<sup>5</sup>-enkephalin-Arg<sup>6</sup>-Gly<sup>7</sup>-Leu<sup>8</sup> immunoreactivity in the human gut, **G-L FERRI** *et al.*

Inhibitory influences of MIF-1 (PLG) and Tyr-MIF-1 (YPLG) on aggression and defeat-induced analgesia in mice, **M KAVALIERS** & **M HIRST**.

Central injections of arginine vasopressin prolong extinction of active avoidance, **G F KOOB** *et al.*

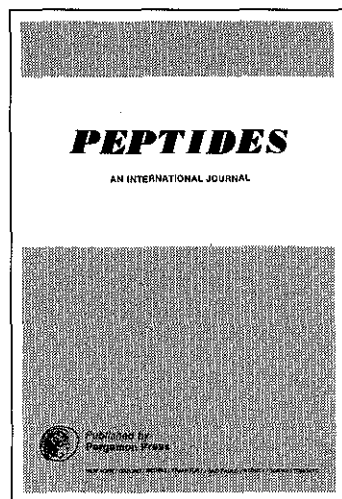
**Indexed/Abstracted in:** *Current Contents/Life Sciences*, *BIOSIS Database*, *Science Citation Index*, *Current Awareness in Biological Sciences (CABS)*, *Excerpta Medica*, *Index Medicus*, *MEDLINE*, *MEDLARS*

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ISSN: 0196-9781 (835)

Formerly published by ANKHO International Inc.



# PERITONEAL DIALYSIS INTERNATIONAL

(Formerly Peritoneal Dialysis Bulletin)

The Official Journal of the International Society for Peritoneal Dialysis

Editor: **DIMITRIOS G OREOPOULOS**, Toronto Western Hospital, 399 Bathurst Street, Toronto, Ontario M5T 2S8, Canada

Deputy Editor: **RAMESH KHANA**, Division of Nephrology, School of Medicine, University of Missouri-Columbia, Columbia, MI 65212, USA

*Peritoneal Dialysis International*, the official journal of the International Society for Peritoneal Dialysis, serves as a primary forum of communication and exchange of information among professionals involved in this increasingly used form of dialysis. Known for its rapid publication of important new papers, the Journal has helped to shape peritoneal dialysis practices worldwide. Renal physicians, nurses and technicians rely on PDI to provide original research and reviews pertinent to the field.

*Peritoneal Dialysis International* also features a "Letters to the Editor" section for readers to communicate with the editors and other readers, and a survey of pertinent literature.

## A Selection of Papers

Renal transplantation in patients on peritoneal dialysis,

**C J CARDELLA**.

Hemodynamic effects on increasing intra-abdominal pressure in peritoneal dialysis, **L GOTLOIB**.

The treatment of profound hypothermia with peritoneal dialysis, **J O'CONNOR**.

A review of intraperitoneal therapy of human ovarian carcinoma, **R C KNAPP** *et al.*

Loss of ultrafiltration in continuous ambulatory peritoneal dialysis, **B FALLER** *et al.*

Vitamin status in continuous ambulatory peritoneal dialysis, **I S HENDERSON** *et al.*

**Indexed/Abstracted in:** *Current Contents/Clinical Practice*, *Excerpta Medica*

## Subscription Information

1988: Volume 8 (4 issues)

ISSN: 0896-8608 (853)

## MEDICAL DOSIMETRY

Editors-in-Chief: **PAUL W REDMOND**, *Department of Medical Physics, Mercy Hospital, 746 Jefferson Avenue, Scranton, PA 18501, USA* and **RAY GARCIA**, *Oregon Health Sciences University, Radiation Therapy, 3181 Sam Jackson Park Rd, Portland, OR 97201, USA*

The past decade has seen tremendous advances in cancer treatment planning and the use of precise radiation therapy. These advances have created the need for an accurate determination of radiation dosages to both cancerous tissue and surrounding areas. Much of this work is performed by the medical dosimetrist.

As an influential member of the radiation therapy treatment planning team, the medical dosimetrist must be thoroughly familiar with the physical and geometric characteristics of the radiation equipment, radioactive sources and treatment techniques commonly employed in cancer management.

*Medical Dosimetry*, the official journal of the American Association of Medical Dosimetrists, is the key source of information on new developments for the medical dosimetrist. Practical and comprehensive in coverage, the journal features original contributions and review articles by medical dosimetrists, oncologists, physicists, and radiation therapy technologists on clinical applications and techniques of external beam, interstitial, intracavitary and intraluminal irradiation in cancer management.

Each issue of *Medical Dosimetry* also presents a review of new literature, including summaries of current articles of interest to medical dosimetrists, as well as book reviews, letters to the editor, news on job opportunities and a calendar of upcoming events.

Medical dosimetrists, radiation oncologists and other clinicians involved in cancer management and the hospital libraries serving them should be subscribers to *Medical Dosimetry*.

### A Selection of Papers

The change in the percentage depth dose of electrons due to beam angulation, **P J BIGGS** (USA).

The early applications and potential usefulness of NMR in radiation therapy treatment planning,

**C W COFFEY** (USA) *et al.*

A method of minimizing the dose to an uninvolved orbit while treating tumors of the nasopharynx and paranasal sinuses,

**C COWAN-POIRIER** & **R PEGLER** (Canada).

Irradiation of advanced carcinomas of the larynx and hypopharynx: dosimetry of a three-field technique,

**J N FIELDS** (USA) *et al.*

Mantle field irradiation in Hodgkin's disease: a comparative analysis of point doses in 117 patients,

**P W GRIGSBY** (USA) *et al.*

Comprehensive dose distribution analysis in interstitial brachytherapy, **J M PAUL** (USA) *et al.*

## MEDICAL DOSIMETRY

Official Journal of the  
American Association of Medical Dosimetrists

Pergamon Press  
New York • Oxford • Harlow • Toronto • San Diego • Taipei • Tientsin

**Subscription Information**  
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## MEDICAL ONCOLOGY AND TUMOR PHARMACOTHERAPY

Senior Editors: **GEORGES MATHE**, *Institut de Cancérologie et d'Immunogénétique, Villejuif, France*, **J F HOLLAND**, *Department of Neoplastic Diseases, Mount Sinai School of Medicine, New York, USA* and **P REIZENSTEIN**, *Division of Hematology, Karolinska Hospital, 104 01 Stockholm 60, Sweden*

*Medical Oncology and Tumor Pharmacotherapy* is an international, peer-review publication featuring original contributions dedicated to the study of oncology. The focus of the publication includes the chemistry, biochemistry, biology, epidemiology, pathology, virology and genetics of malignant tumors as well as the clinical aspects of the disease. Topics include the diagnosis, treatment, and prevention of malignant tumors in both clinical and research settings. The journal will also feature articles on the psychological, social and economic aspects of cancer.

### A Selection of Papers

C-reactive protein during chemotherapy for acute leukemia with special reference to non-infective causes of fever,

**S GRÜTZMEIER** (Sweden) & **H VON SCHENCK** (Sweden).

A biological marker, strongly associated with early oral contraceptive use, for the selection of a high risk group for premenopausal breast cancer, **H OLSSON** (Sweden) *et al.*

Predictive value of T-cell subset derangements in lung cancer,

**C ZABBE** (France) *et al.*

The tissue localization of *m*-AMSA and its effect on thymidine incorporation in various tissues *in vivo*,

**B HELLMAN** (Sweden) *et al.*

Etoposide: a pharmacokinetic profile including an assessment of bioavailability, **D CUNNINGHAM** (UK) *et al.*

The effect of 5-fluorouracil on rat adrenal function,

**D J KERR** (UK) *et al.*

A pharmacokinetic study of adriamycin and 4'epi-adriamycin after simultaneous intra-arterial liver administration,

**S EKSBORG** (Sweden) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Excerpta Medica, Current Contents*

## Medical Oncology and Tumor Pharmacotherapy

Official Journal of the  
European Association of Cancer Pharmacologists

Pergamon Press  
New York • Oxford • Harlow • Toronto • San Diego • Taipei • Tientsin

**Subscription Information**  
1988: Volume 5 (4 issues)  
ISSN: 0736-0118 (713)



# PHARMACOLOGY & THERAPEUTICS

Executive Editors: A C SARTORELLI, *Department of Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510, USA*, W C BOWMAN, *Department of Physiology & Pharmacology, University of Strathclyde, Royal College, 204 George Street, Glasgow G1 1XW, UK* and A M BRECKENRIDGE, *Department of Pharmacology & Therapeutics, University of Liverpool, PO Box 147, Liverpool L69 3BX, UK*

*Pharmacology & Therapeutics* presents lucid, critical and authoritative reviews of currently important topics in pharmacology including chemotherapy, toxicology, metabolic inhibitors, clinical pharmacology and therapeutics and general and systematic pharmacology. The articles are normally specially commissioned, although uninvented review papers are occasionally published. In fields in which very rapid growth occurs, the manuscripts covering a certain topic are reappraised, thoroughly updated and then published as a definitive hard-bound volume of the *International Encyclopedia of Pharmacology and Therapeutics*.

## A Selection of Papers

Actions of snake venom on neuronal nicotinic receptors and other neuronal receptors, V A CHIAPPINELLI (USA).

Dendrotoxins: snake toxins that block potassium channels and facilitate neurotransmitter release, A L HARVEY (UK) & A J ANDERSON (UK).

Photoaffinity labeling of beta-adrenergic receptors, J M STADEL (USA).

Phospholipases in snake venoms and their effects on nerve and muscle, J B HARRIS (UK).

Circulatory implications of exercise and heat stress, A W BELL (Australia) & J R S HALES (Australia).

Isolation and purification of O<sup>6</sup>-alkylguanine-DNA alkyltransferase from human leukemic cells. Prevention of chloroethylnitrosourea-induced cross-links by purified enzyme, T P BRENT (USA).

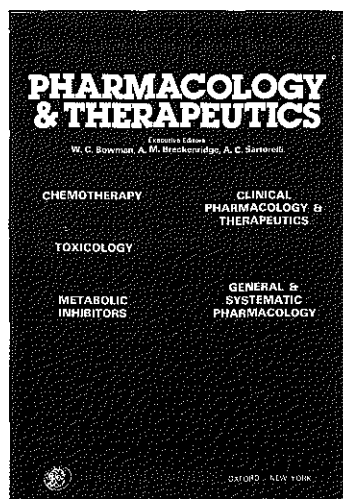
Quantitation of DNA repair capacities of human tumor cells by estimation of transfer of DNA adducts to repair proteins, D B YAROSH (USA).

Identification of specific DNA lesions induced by three classes of chloroethylating agents: chloroethylnitrosoureas, chloroethylmethanesulfonates and chloroethylimidazotetrazines, N W GIBSON (USA) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Current Awareness in Biological Sciences (CABS), BIOSIS Database*

## Subscription Information

1988: Volumes 36 - 39  
(12 issues)  
ISSN: 0163-7258 (459)



# PHARMACOLOGY BIOCHEMISTRY & BEHAVIOR

Editor: MATTHEW J WAYNER, *Division of Life Sciences, University of Texas at San Antonio, San Antonio, TX 78285, USA*

*Pharmacology Biochemistry & Behavior* publishes original reports of systematic studies in the areas of pharmacology, biochemistry, toxicology and behavior, in which the primary emphasis and theoretical context are behavioral. Since its inception in 1973, *Pharmacology Biochemistry & Behavior* has been known as the premier journal in its field. Many early studies in behavioral pharmacology and behavioral toxicology on alcohol, marijuana, cocaine, benzodiazepines and many other beneficial and abused substances were reported for the first time in this journal.

Published 12 times a year, the journal features:

- Original research reports
- Brief communications describing a new method, technique or apparatus
- Rapid communications
- Meeting reports
- Relevant review articles.

*Pharmacology Biochemistry & Behavior* contains valuable information for researchers and the scientific community interested in pharmacology, neurochemistry, and biochemistry of learning and memory, behavioral disorders, alcohol, nicotine and other drug dependencies, feeding, stress and social behavior.

## A Selection of Recent Papers

The effects of ethanol on eye tracking in rhesus monkeys and humans, K ANDO *et al.*

Age-dependent changes of brain GABA levels, turnover rates and shock-induced aggressive behavior in inbred strains of mice, J CLEMENT *et al.*

Differential effects of benzodiazepine receptor ligands on isotonic saline and water consumption in water-deprived rats,

L B ESTALL & S J COOPER.

Chronic autoreceptor blockade and neuroleptic-induced dopamine receptor hypersensitivity, J H GORDON *et al.*

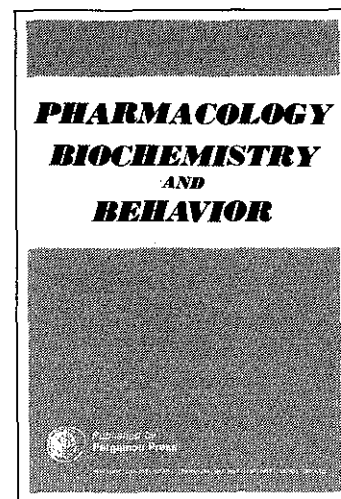
Mouth versus deep airways absorption of nicotine in cigarette smokers, G B GORI *et al.*

Alterations in catecholamine levels and turnover in discrete brain areas after food deprivation, M JHANWAR-UNIYAL *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Awareness in Biological Sciences (CABS), Excerpta Medica, Index Medicus, MEDLINE, MEDLARS and BIOSIS Database*

## Subscription Information:

1988: Volumes 29 - 31  
(12 issues)  
ISSN: 0091-3057 (829)  
Formerly published by  
ANKHO International Inc.



New for 1988

## MINERALS ENGINEERING

A new International Journal devoted to innovation and developments in mineral processing and extractive metallurgy

Editor-in-Chief: **BARRY A WILLS**, *Camborne School of Mines, Pool, Redruth, Cornwall TR15 3SE, UK*

The purpose of the journal is to provide for the rapid publication of topical papers featuring practical developments in the allied fields of mineral processing and extractive metallurgy. Its wide ranging coverage of research and practical (operating) topics will include physical separation methods, such as comminution, flotation concentration and dewatering, chemical methods such as pyro-, hydro-, and electro-metallurgy, analytical techniques and mineralogical aspects of processing. All aspects of the processing of ferrous and non-ferrous metals, non-metallic minerals and coal will be authoritatively featured. Papers accepted will be those of strong practical content dealing with research and development in these fields, and short technical notes will be especially favoured. Reviews of specific subject areas and papers describing developments in operating processing plants are also actively sought.

### Regular Features will Include:

- Current state-of-the-art review papers
- Applied research papers
- Case studies
- Innovative technology, equipment and processes
- Short communications/technical notes
- Book reviews/conference reports/software reviews
- Calendar of important events
- New literature and other current awareness services.

Particular emphasis will be placed on the area of continuing professional education directed towards meeting the information needs of processing engineers working in production, plant design and other operational functions.

### Contents of First Issue

Column flotation of very fine particles, **R ESPINOSA-GOMEZ** (Canada) *et al.*

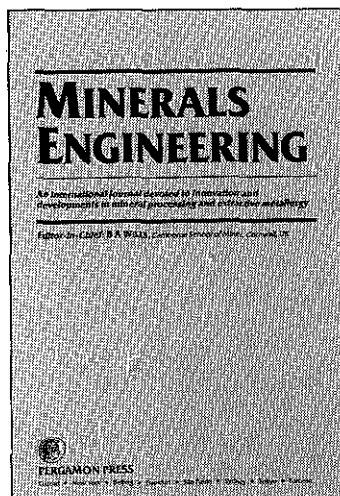
Application of mineralogy to the beneficiation of a tin-sulphide ore, **C J HOLL** (UK) & **A V BROMLEY** (UK).

Backfill in South Africa: developments to classification systems for plant residues, **A W STRADLING** (South Africa) *et al.*

Froth characteristics and grade-recovery relationships in the flotation of lead-zinc and copper ores, **T V SUBRAHMANYAM** (Brazil) & **E FORSSBERG** (Sweden).

The reduction of SnO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> by solid carbon, **A R MITCHELL** (UK) & **R H PARKER** (UK).

Wear and chipping of coarse particles in autogenous grinding: experimental investigation and modelling, **M GOLDMAN** (Canada) & **G BARBERY** (Canada).



**Subscription Information**  
1988: Volume 1 (4 issues)  
ISSN: 0892-6875 (R37)

## MOLECULAR ASPECTS OF MEDICINE

An Interdisciplinary Review Journal

Editors: **H BAUM**, *Department of Biochemistry, King's College London, Kensington Campus, Campden Hill Road, Kensington, London W8 7AH, UK*, **J GERGELY**, *Department of Muscle Research, Boston Biomedical Research Institute, 20 Staniford Street, Boston, MA 02114, USA* and **B L FANBURG**, *Tufts University School of Medicine, 171 Harrison Avenue, Boston, MA 02111, USA*

The main aim of this publication is to bridge the gap between the clinician and the biochemist by selecting a spectrum of topics in medicine to illustrate not only the molecular insights that derive from the application of biochemistry, but also the variety of challenging problems that medicine is able to offer to biochemists. Most of the reviews published are by practising clinical scientists who have developed their own personal perspective as an extended review on the molecular aspects of their own speciality. They address both doctors who wish to expand their appreciation of biochemistry, and biochemists with an interest in the problems of clinical practice.

### A Selection of Papers

The active roles of cells of the blood vessel wall in health and disease, **P LIBBY**.

Phosphate homeostasis, **P J BUTTERWORTH**.

Proteolysis and physiological regulation, **J S BOND** & **R J BEYNON**.

Current views of the pathobiochemistry of epilepsy, **H F BRADFORD** & **D W PETERSON**.

Dietary fibre in health and disease, **I McLEAN BAIRD** & **M H ORNSTEIN**.

Thrombin-endothelial interactions: role in lung vascular permeability, **A B MALIK** & **S K LO**.

Lung surfactant, **J L HARWOOD** & **R J RICHARDS**.

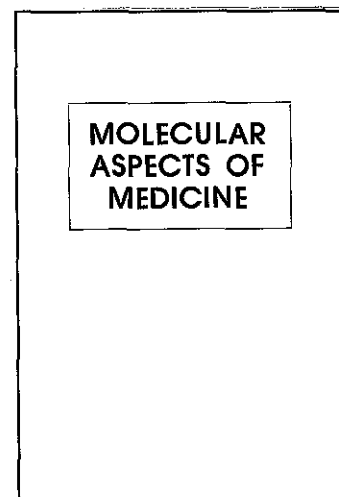
Arrhythmias associated with myocardial ischaemia and infarction, **J H BOTTING** *et al.*

Molecular aspects of primary biliary cirrhosis, **O EPSTEIN**.

The importance of free radicals and catalytic metal ions in human disease, **B HALLIWELL** & **J M C GUTTERIDGE**.

Molecular aspects of aging, **A K ROY** & **B CHATTERJEE**.

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Excerpta Medica, Index Medicus, MEDLINE, Current Contents, BIOSIS Database*



**Subscription Information**  
1988: Volume 10 (6 issues)  
ISSN: 0098-2997 (457)

# PHYSICS AND CHEMISTRY OF THE EARTH

An International Review Journal

This series covers significant developments in the physics and chemistry of the earth and planets. Each contribution is written by an expert in the field, and topics treated include solid earth geophysics and geochemistry, physical and chemical oceanography, and atmospheric physics and chemistry. The aim is to provide Earth and planetary scientists with critical in-depth surveys of significant work in their own, and related, fields. The journal's contributors and readers include geochemists, geophysicists, geologists, oceanographers and atmospheric and planetary scientists.

## Volumes 13/14

Chemistry and Geochemistry of Solutions at High Temperatures and Pressures.

Editors: **F E WICKMAN & D RICKARD.**

## Volume 15

Structure and Evolution of the Continental Lithosphere.

Editors: **V R MURTHY (USA) & H N POLLACK (USA).**

Contents:

Seismological determinations of the subcrustal continental lithosphere, **I S SACKS (USA) & J A SNOKE (USA).**

The thermal structure and thermal evolution of the continental lithosphere, **P MORGAN (USA).**

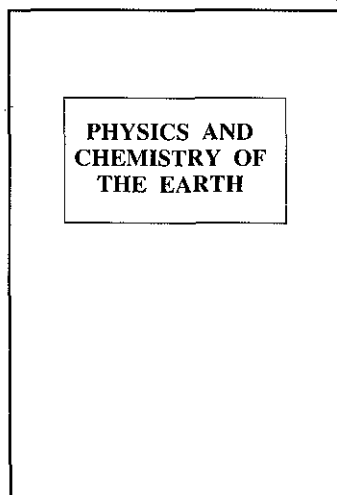
Evolution, growth and stabilization of the Precambrian lithosphere, **A KRONER (FRG).**

Major and trace element composition of the continental lithosphere, **B L WEAVER (UK) & J TARNEY (UK).**

## Volume 16

Events of the Mid-Cretaceous, **R REYMENT (Sweden) & P BENGTSON (Sweden).**

Indexed/Abstracted in: *Chemical Abstracts, INSPEC*



## Subscription Information

1988: Volume 17 (1 issue)  
ISSN: 0079-1946 (413)

# THE PHYSICS OF METALS AND METALLOGRAPHY

Translation of the Soviet Journal *Fizika Metallov i Metallovedenie*

Translation Editor: **J W CHRISTIAN**, *Department of Metallurgy, University of Oxford, Parks Road, Oxford, OX1 3PH, UK*

This journal is a cover-to-cover translation of the Russian journal *Fizika Metallov i Metallovedenie*, and is published in collaboration with the Board of Governors of *Acta Metallurgica Inc.*

It describes theoretical problems and experimental investigation into the physical properties of metals and alloys, and contains studies of phenomena occurring during all phases of manufacture and in the metals in actual use in various applications.

## A Selection of Papers

Temperature dependence of the magnon spectrum in conducting antiferromagnetics, **Y A MILYUKOV (USSR) & O M TOLKACHEV (USSR).**

The description of mutual diffusion in alloys with vacancy sinks of arbitrary strength, **K P GUROV (USSR) & A M GUSAK (USSR).**

Spin dynamics of a Heisenberg paramagnet, **V P KALASHNIKOV (USSR) & S V TRET'YAKOV (USSR).**

Concentration dependence of the thermoelectric properties of Cu-Ni alloys, **A A LUKHVICH (USSR) & A S KAROLIK (USSR).**

Initial stages of decomposition of solid solutions, **A L ROYTBURD (USSR).**

Electronic structure and optical properties of non-equiatomic beta brass CuZn near the structural phase transition, **S V ALYSHEV (USSR) et al.**

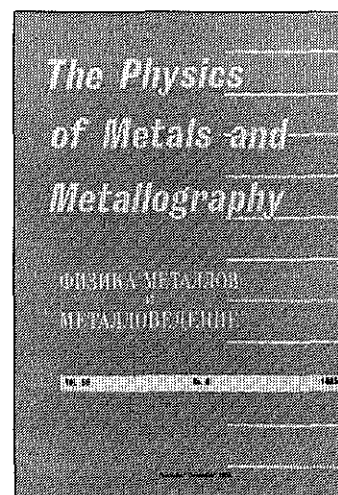
Structure and electrical properties of niobium irradiated with helium ions, **M P VOLKOV (USSR) et al.**

Phase composition of homogenized alloys  $\text{Sm}(\text{Co,Fe,Cu,Zr})_2$  and its influence on the magnetic hardness, **G V IVANOVA (USSR) et al.**

Domain structure dynamics and electromagnetic losses in crystals Fe-3%Si remagnetized at an angle to the easy axis, **V F TIUNOV (USSR) & V A ZAYKOVA (USSR).**

Magnetic properties of intermetallic phases in systems of cobalt with *d*-transition metals of groups V and VI, **T V ISHCENKO (USSR) et al.**

Indexed/Abstracted in: *INSPEC*



## Subscription Information

1988: Volume 63 & 64  
(12 issues)  
ISSN: 0031-918X (249)

## NEUROBIOLOGY OF AGING

### Research on Age-Related Phenomena, Neurodegeneration and Neuropathology

Editor: **RAYMOND T BARTUS**, *Department of CNS Research, Medical Research Division of American Cyanamid, Lederle Laboratories, Pearl River, NY 10965, USA*

A multidisciplinary journal, *Neurobiology of Aging* publishes papers related to aging and the degeneration of the nervous system. Providing a unique forum for communication among neuroscientists, neuropathologists, molecular biologists, gerontologists, experimental clinicians and other investigators interested in aging and age-related neurodegeneration, *Neurobiology of Aging* brings together in one publication the work from numerous disciplines concerned with the aging nervous system. The journal particularly emphasizes studies that attempt to understand and/or treat the functional changes associated with aging and neurodegeneration.

*Neurobiology of Aging* features: original articles and brief communications - reports of new research results; reviews-provocative discussions of controversial topics (an "open peer commentary format" is used to invite balanced consideration); meeting reports - summaries of new developments presented at international symposia and conferences; calendar section - announcements of meetings of interest to researchers of the neurobiology of aging; age page - news of general interest; grants and awards - information on public funding, new grants and awards.

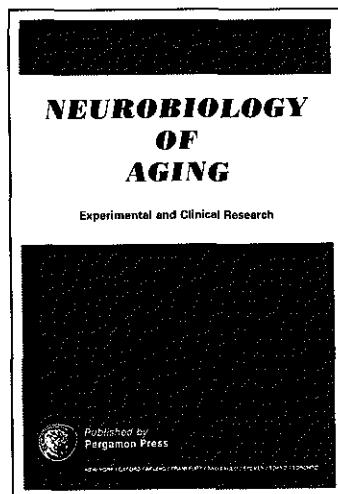
#### A Selection of Papers

Interaction of norepinephrine with Purkinje cell responses to cerebellar afferent inputs in aged rats, **P C BICKFORD** *et al.*  
Quantitative histochemistry of brain acetylcholinesterase and learning rate in the aged rat, **A BIEGON** *et al.*  
The selectivity of the reduction of serotonin S<sub>2</sub> receptors in Alzheimer-type dementia, **A J CROSS** *et al.*  
Stability of numbers but not size of mouse forebrain cholinergic neurons to 53 months, **J C HORNBERGER** *et al.*  
Quantitative morphology of medium-sized caudate spiny neurons in aged cats, **M S LEVINE** *et al.*  
Age-related alterations in monoamine release from rat striatum: an *in vivo* electrochemical study, **G M ROSE** *et al.*  
The adrenocortical axis in the aged rat: impaired sensitivity to both fast and delayed feedback inhibition, **R M SAPOLSKY** *et al.*

#### Review articles

Neural transplantation: a review of recent developments and potential applications to the aged brain, **D M GASH** *et al.*  
Antemortem markers of Alzheimer disease, **E HOLLANDER** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, BIOSIS Database, CABS, Excerpta Medica*



#### Subscription Information

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Formerly published by  
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## NEUROCHEMISTRY INTERNATIONAL

Executive Editors: **NEVILLE N OSBORNE** (Chairman), *Nuffield Laboratory of Ophthalmology, University of Oxford, Walton Street, Oxford, UK*, **J ROSSIER**, *CNRS, 91190 Gif-sur-Yvette, France*, **G JAIM-ETCHEVERRY**, *Institute of Cellular Biology, Faculty of Medicine, University of Buenos Aires, Argentina*, **W LOVENBERG**, *Merrell-Dow Research Institute, Cincinnati, OH 45215, USA* and **K KURIYAMA**, *Department of Pharmacology, Kyoto Prefectural University of Medicine, Kyoto, Japan*

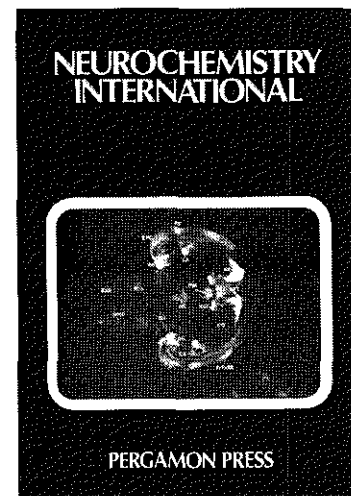
*Neurochemistry International* publishes papers primarily concerned with the metabolism and function of the nervous system. This incorporates the chemical aspects of the anatomy, pathology, physiology, pharmacology and genetics of the nervous system, as well as the biochemistry of the nervous tissues. Other papers demonstrate the relationship between fundamental neurochemical observations and basic neurology, neuropharmacology, chemical pathology and neurotransmission of the nervous system.

#### A Selection of Papers

Norepinephrine metabolism in the cerebellum of the Purkinje cell degeneration (PCD) mutant mouse, **B GHETTI** (USA) *et al.*  
The estimation of free calcium within synaptosomes and mitochondria with Fura-2; comparison to Quin-2, **H KOMULAINEN** (USA) & **S C BONDY** (USA).  
Endogenous inhibitor of GABA<sub>B</sub> and GABA<sub>A</sub> receptors, **I YAMADA** (Japan) *et al.*  
Phosphate activated glutaminase-like immunoreactivity in the nervous system from different species and in different neuronal cell types and in astrocytes, **G SVENNEBY** (Norway) *et al.*  
Amino acid incorporation during morphine intoxication, **E HANSSON** (Sweden) & **L RÖNNBÄCK** (Sweden).  
A selective 5-HT<sub>1</sub> agonist, RU 24969, increases locus coeruleus catechol metabolic and neuronal activity, **J-L BRASSARD** (France) *et al.*  
Effects of nigral dopaminergic lesions and striatal excitotoxin lesions on brain converting enzyme, **S Y CHAI** (Australia) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, BIOSIS Database, Current Contents, Excerpta Medica, PASCAL-CNRS Database, Psych-INFO, Psychol Abs*



#### Subscription Information

1988: Volumes 12 & 13  
(8 issues)  
ISSN: 0197-0186 (643)

# PLANETARY AND SPACE SCIENCE

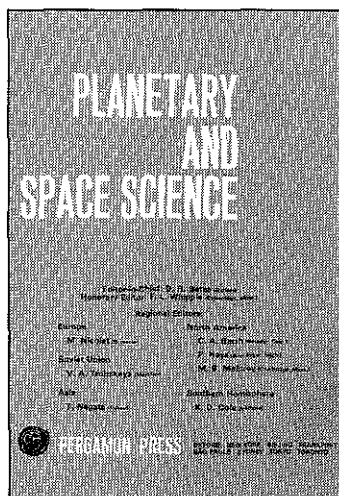
Editor-in-Chief: **Sir DAVID BATES**, *Department of Applied Mathematics and Theoretical Physics, The Queen's University, Belfast BT7 1NN, Northern Ireland, UK*

*Planetary and Space Science* publishes original contributions in the following areas: planetary and terrestrial atmospheres; atomic processes; radio and visual aurora; comets; cosmic rays; geomagnetic fields; geogravitational potential; magneto-ionic theory; meteors; the moon; radiation belts; solar; corpuscular and electromagnetic radiation; solar wind; zodiacal light; interplanetary magnetic fields and the ionosphere.

## A Selection of Papers

Numerical modelling of scintillation variations from interplanetary disturbances, **S J TAPPIN** (UK).  
Distant (200-238  $R_s$ ) magnetotail lobe characteristics during quiet solar wind conditions, **B T TSURUTANI** (USA) *et al.*  
Statistical properties of magnetic field fluctuations in the distant plasmashet, **B T TSURUTANI** (USA) *et al.*  
Scattering of electromagnetic waves by electron acoustic waves, **M Y YU** (FRG) *et al.*  
Comparison of ion structures in comets Halley and Giacobini-Zinner, **D REES** (UK) *et al.*  
"Serpentine emission" at the high latitude Antarctic station, Davis, **R J MORRIS** (Australia) & **K D COLE** (Australia).  
Geomagnetic response to magnetic clouds, **R M WILSON** (USA).  
A new method of measuring the ion-neutral collision frequency using incoherent scatter radar, **T NYGREN** (Finland) *et al.*  
On the turbulent heating and the threshold condition in the critical ionization velocity interaction, **E MÖBIUS** (FRG) *et al.*  
Simulations of auroral plasma processes: electric fields, waves and particles, **N SINGH** (USA) *et al.*  
Transient field-aligned electric fields inside the plasma sheet inferred from measurements of energetic particles, **D V SAR AFOPOULOS** (Greece) & **E T SARRIS** (Greece).  
Latitudinal structures of discrete arcs resulting from viscous interaction between sheared plasma flows, **T YAMAMOTO** (Japan) & **N HORI** (Japan).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, INSPEC, PASCAL-CNRS Database, World Aviation Directory*



**Subscription Information**  
1988: Volume 36 (12 issues)  
ISSN: 0032-0633 (200)

# PLASMA PHYSICS AND CONTROLLED FUSION

A Europhysics Journal Published jointly by the Institute of Physics and Pergamon Press

Honorary Editor: **A GIBSON**, *JET Joint Undertaking, Abingdon, Oxfordshire OX14 3EA, UK*

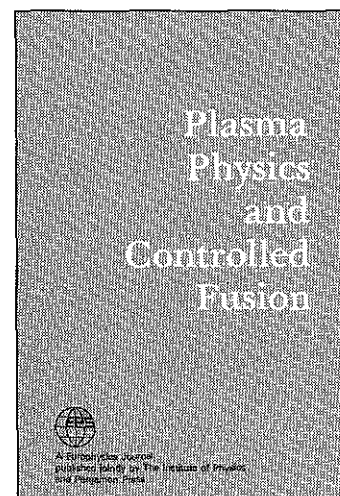
*Plasma Physics and Controlled Fusion* is a monthly journal for the communication of the results of current research on all aspects of plasma physics and controlled fusion. With 80% of contributions coming from outside the UK, *Plasma Physics and Controlled Fusion* is one of the leading international journals in this field. Research papers published cover all aspects of plasma physics and controlled nuclear fusion together with the plasma physics of highly ionised gases, high temperature, collective processes, and other fusion oriented research. Not only is the authorship international; 88% of subscriptions come from non-UK sources (42% from the USA). This means that *Plasma Physics and Controlled Fusion* is the journal for the communication of the results of current research worldwide.

In addition to publishing research papers and research notes, the journal now includes occasional review papers, conference reports and the Invited Papers presented at the annual conferences of the Plasma Physics Divisions of the European Physical Society and the Institute of Physics.

## A Selection of Papers

Review of Tokamak plasma heating by wave damping in the ion cyclotron range of frequency, **J ADAM** (France).  
Langmuir probe measurements in the TEXTOR Tokamak during ALT-I pump limiter experiments, **D M GOEBEL** (USA) *et al.*  
Characteristics of Alfvén surface waves along moving cylindrical plasma columns, **K SOMASUNDARAM** (India) & **A SATYA NARAYANAN** (India).  
On the quasilinear renormalization theory of turbulent magnetized plasma, **C F ZHANG** (China).  
A method for time resolved neutron spectroscopy on short pulsed fusion neutron sources, **R SCHMIDT** (FRG) & **H HEROLD** (FRG).  
Convective equilibrium and mixing-length theory for stellarator reactors, **D D -M HO** (USA) & **R M KULSRUD** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 30 (14 issues)  
ISSN: 0741-3335 (204)

## NEUROSCIENCE

An International Journal under the editorial direction of IBRO

Chief Editors: **P G KOSTYUK**, *A A Bogomoletz Institute of Physiology, Academy of Sciences, Ukrainian SSR, 4 Bogomoletz Street, Kiev 24, 252601 GSP, USSR*, **R LLINAS**, *Department of Physiology and Biophysics, New York University School of Medicine, 550 First Avenue, New York 10016, USA* and **A D SMITH**, *Department of Pharmacology, University of Oxford, South Parks Road, Oxford OX1 3QT, UK*

*Neuroscience*, under the direction of the International Brain Research Organization, is one of the leading journals in its field. Truly international in scope, the journal publishes papers from all parts of the world, and has a distinguished international editorial board, which includes specialists in all areas of neuroscience in order to ensure a high standard of publication.

*Neuroscience* publishes papers describing the results of original research on any aspect of the scientific study of the nervous system. The observations in the papers are clearly and succinctly reported so as to be readily comprehensible to scientists of other disciplines.

### A Selection of Papers

Reconstruction of the defective cerebellar circuitry in adult Purkinje cell degeneration mutant mice by Purkinje cell replacement through transplantation of solid embryonic implants **C SOTELO** (France) & **R M ALVARADO-MALLART** (France).

The localization and distribution of high affinity beta-nerve growth factor binding sites in the central nervous system of the adult rat. A light microscopic autoradiographic study using <sup>125</sup>I beta-nerve growth factor, **G RAIIVICH** (FRG) & **G W KREUTZBERG** (FRG).

Neural crest-derived proprioceptive neurons express nerve growth factor receptors but are not supported by nerve growth factor in culture, **A M DAVIS** (UK) *et al.*

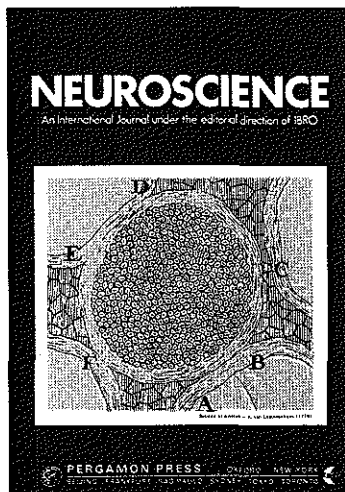
Target cell stimulation of dissociated serotonergic neurons in culture, **E C AZMITIA** (USA) & **P M WHITAKER-AZMITIA** (USA).

Quantitative light microscopic autoradiographic localization of cholinergic muscarinic receptors in the human brain: forebrain, **R CORTES** (Switzerland) *et al.*

Fiber tracts that contain more opioid binding sites than gray matter does: a quantitative autoradiographic study in the guinea-pig, **R W FOOTE** (Switzerland).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volumes 24 - 27  
(12 issues)  
ISSN: 0306-4522 (468)

## NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS

Editor: **MATTHEW J WAYNER**, *Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78285, USA*

In its tenth year, *Neuroscience and Biobehavioral Reviews* is a quarterly review journal covering a broad range of major topics in biology with a special emphasis on neuroscience and behavior. Known among its contributors as a journal which generates a large number of reprint requests, *Neuroscience and Biobehavioral Reviews* is widely read by the neuroscience community and its articles are often used as teaching aids. In addition to survey articles, the journal also presents annotated bibliographies and reports from professional meetings. Recent reviews have covered such topics as endogenous oscillators, aggression, sleep, benzo-diazepines, stress, learning and memory.

### A Selection of Papers

Changes in body temperature after administration of adrenergic and serotonergic agents and related drugs including antidepressants II, **W G CLARK** & **J M LIPTON**.

Endogenous anticonvulsant substances, **M DRAGUNOW**.

The role of glucose, insulin and glucagon in the regulation of food intake and body weight, **S P GROSSMAN**.

Neurochemical coupled actions of transmitters in the microvasculature of the brain, **G C PALMER**.

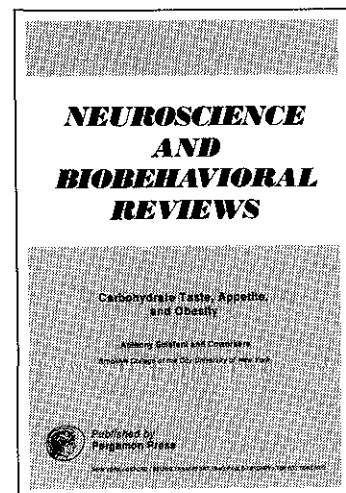
Structure and function in circadian timing systems: evidence for multiple coupled circadian oscillators, **A M ROSENWASSER** & **N T ADLER**.

Neurotransmitters, anxiety and benzodiazepines: a behavioral review, **R A SHEPHARD**.

The stereoselectivity of serotonin uptake in brain tissue and blood platelets: the topography of the serotonin uptake area, **D F SMITH**.

Amine accumulation in Parkinson's disease and other disorders, **G L WILLIS**.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Science Citation Index, Current Awareness in Biological Sciences (CABS), Index Medicus, MEDLINE, Excerpta Medica, MEDLARS, BIOSIS Database*



**Subscription Information**  
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ISSN: 0149-7634 (831)  
Formerly published by  
ANKHO International Inc.

# PREVIEWS OF HEAT AND MASS TRANSFER

Co-ordinating Editor: T F IRVINE Jr, *State University of New York, Stony Brook, NY, USA*

*Previews of Heat and Mass Transfer* surveys the journal literature on an international scale, providing abstracts of recently published papers in heat and mass transfer from over 100 journals around the world. *Previews of Heat and Mass Transfer* also includes up-to-date information on research reports from industrial and university laboratories, recently published technical books, and university dissertations.

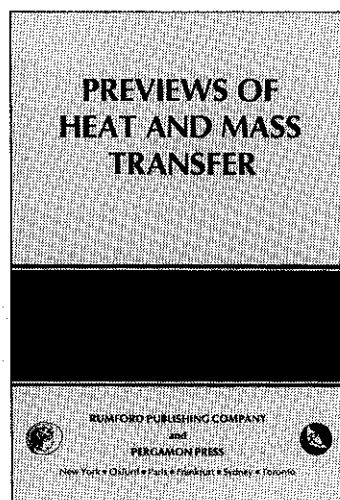
Occasional special features range from topical bibliographies, descriptions of heat and mass transfer laboratories, and international developments in the field. Each issue contains a calendar of professional meetings scheduled around the globe.

#### Areas Covered by the Journal Include:

Conduction and fins  
Single phase channel flow  
Flow in boundary layers and over external surfaces  
Flow separation, jets and plasmas  
Transfer mechanisms  
Natural convection including mixed convection  
Rotating and vibrating systems  
Heat and mass transfer and flames  
Multiphase phenomena  
Radiation  
Experimental techniques  
Heat exchangers and heat pipes  
Porous media, packed and fluidized beds  
General applications  
Thermophysical properties  
Solar energy  
Analytical and numerical techniques.

#### Subscription Information

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Distributed worldwide by Pergamon Press on behalf of Rumford Publishing Co Inc, USA



# PRINTING ABSTRACTS

The complete information service for the printing industry

Editor: KATHY YOUNG, PIRA, *The Research Association for the Paper and Board, Printing and Packaging Industries, Randalls Road, Leatherhead, Surrey KT22 7RU, UK*

The monthly journal *Printing Abstracts* contains summaries (abstracts) of publications and documents issued throughout the world relating to all aspects of printing including commercial information. Each issue contains over 200 references prepared by PIRA's own information scientists from international sources which include over 200 journals which regularly publish articles on printing including machinery, processes, printing substrates, and inking; and from standards and specifications, market reports, technical reports, theses, directories, books, government publications and the national press. *Printing Abstracts* has expanded its coverage to include up-to-date information on new products, new processes, new equipment, new materials, company developments, statistics and market research.

*Printing Abstracts* is accessible in a number of other ways: advance abstracts service, selective dissemination of information services, bibliographic search service, and magnetic tape leasing.

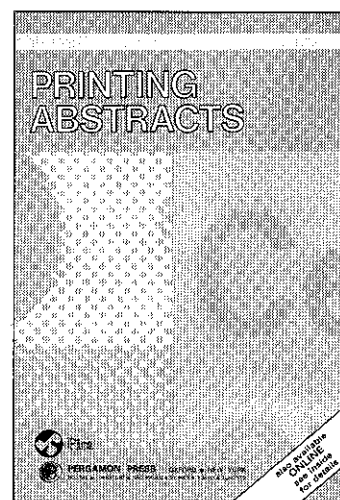
*Printing Abstracts* is also available online via Pergamon ORBIT InfoLine.

#### Contents

- Printing Industry in General.
- Prepress.
- Printing Processes.
- Post Press.
- Products.
- Index.

#### Subscription Information

1988: Volume 43 (12 issues)  
ISSN: 0031-109X (684)  
*Printing Abstracts* - available online via Pergamon ORBIT InfoLine.



# NONLINEAR ANALYSIS

## Theory, Methods & Applications

An International Multidisciplinary Journal

Editor: **V LAKSHMIKANTHAM**, *Department of Mathematics, University of Texas at Arlington, Arlington, TX 76019, USA*

*Nonlinear Analysis, Theory, Methods & Applications* is concerned, as the title stresses, with three major activities. It is a multidisciplinary journal, which has applications in main academic subjects as well as in industry and government. The journal publishes important research and expository papers and preliminary communications devoted to solving nonlinear problems in all areas of theory, methods and applications of nonlinear analysis.

Clearly, papers that tend to integrate and interrelate theory, methods and applications within the scope of the journal will be particularly welcomed.

### A Selection of Papers

The controllability of infinite horizon optimal control problems, **D A CARLSON** (USA).

Nonlinear boundary value problems at resonance,

**R IANNACCI** (Italy) & **M N NKASHAMA** (Italy).

Asymptotic stability properties of Volterra integro-differential equations, **M RAMA MOHANA** (India) & **V RAGHAVENDRA** (India).

On the existence of multiple ordered solutions of nonlinear eigenvalue problems, **D G DE FIGUEIREDO** (Brazil).

A free boundary problem associated with icing in a channel, **A FRIEDMAN** (USA) & **S STOJANOVIC** (USA).

Steady-state reaction-diffusion-convection equations: dead cores and singular perturbations, **L E BOBISUD** (USA) *et al.*

Remarks on subharmonic oscillations of a semilinear wave equation, **A CAPOZZI** (Italy) & **A SALVATORE** (Italy).

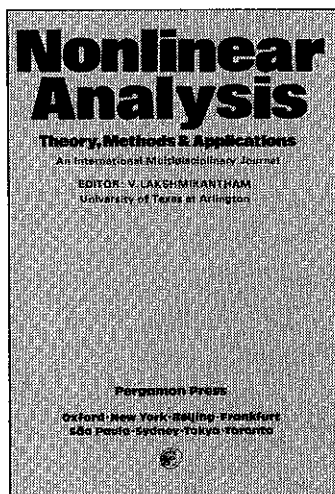
A uniqueness theorem in incompressible viscous fluid dynamics, **R RUSSO** (Italy).

Nonlinear integral inequalities for functions defined in partially ordered topological spaces, **A B RONKOV** (Bulgaria) & **D D BAINOV** (Bulgaria).

Local existence of solution for the initial boundary value problem of fully nonlinear wave equation, **Y SHIBATA** (Japan) & **Y TSUTSUMI** (Japan).

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, INSPEC, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 12 (12 issues)  
ISSN: 0362-546X (239)

# NUCLEAR AND CHEMICAL WASTE MANAGEMENT

An International Journal of Hazardous Waste Technology

Editor-in-Chief: **ALAN A MOGHISSI**, *PO Box 7166, Alexandria, VA 22307, USA*

*Nuclear and Chemical Waste Management* is an international quarterly journal serving as a forum for the presentation of information encompassing the entire field of hazardous waste, including radioactive waste, chemical waste and transuranic waste. As the journal serves a multidisciplinary audience, authors are urged to write for non-specialists. Papers on the following topics will be considered for publication: Sources and production rate of hazardous waste; Storage and disposal; Management of gaseous, liquid and solid waste; Decommissioning of chemical and nuclear facilities; Engineering experience; Volume reduction including incineration; Economic considerations; Technology for detoxification of hazardous waste; Laws, regulations, standards and norms; Solidification and immobilization improvement of waste management technology; Packaging and transportation technology; Treatment of spent nuclear fuel.

### A Selection of Papers

Ocean transport of low-level radioactive waste off Taiwan, **C CHUNG** (China) *et al.*

A pilot plant demonstration of the vitrification of radioactive solutions using microwave power, **M S MORRELL** (UK) *et al.*  
Water leachability of cement forms for medium-level waste immobilization, **E ZAMORANI** (Italy) *et al.*

A model of economic incentives for volume reduction of low-level radioactive waste, **M H VOTH** (USA) & **W F WITZIG** (USA).

Effects of crystalline phases on leaching of a devitrified simulated high-level waste glass, **H MITAMURA** (Japan) *et al.*

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Chemical Abstracts*



**Subscription Information**  
1988: Volume 8 (4 issues)  
ISSN: 0191-815X (404)



# PROGRESS IN ANALYTICAL SPECTROSCOPY

An International Research and Review Journal

Editor-in-Chief: **C L CHAKRABARTI**, *Department of Chemistry, Carleton University, Ottawa, Ontario, Canada*  
Editors: **R E STURGEON**, *National Research Council of Canada, Ontario, Canada*, **G M HIEFTJE**, *Indiana University, USA*, **E S YEUNG**, *Iowa State University, USA* and **M W BLADES**, *University of British Columbia, Canada*

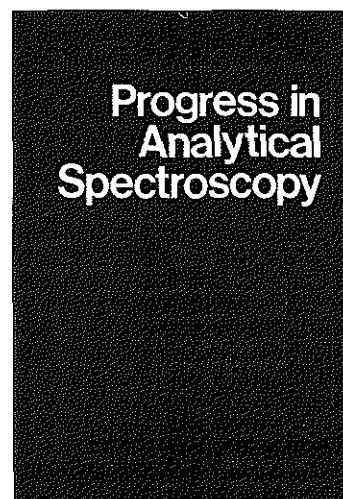
*Progress in Analytical Spectroscopy (PAS)* is an international journal for the publication of comprehensive articles - original research papers and authoritative reviews - in all areas of analytical spectroscopy. The journal publishes articles by internationally recognized authorities specially selected to write on important areas of growth and all major developments in the field. *PAS* is significantly different from other publications in this field in that it aims to publish comprehensive research and review articles which will be of lasting value to readers as established reference sources. *PAS* publishes articles on fundamental and applied aspects of analytical atomic and molecular spectroscopy. Topics encompassed include atomic and molecular absorption, atomic mass spectrometry, X-ray emission and fluorescence spectrometry, electron spectroscopy, electron-beam and nuclear analytical techniques, and instrument developments. *PAS* is of interest not only to the specialist and research worker, but also to the chemist, geochemist, geologist, mining engineer, metallurgist, biochemist, biologist, forensic scientist, environmental scientist, materials scientist and agricultural scientist.

## A Selection of Papers

Determination of stable lead isotopes by Zeeman atomic absorption spectrometry (ZAAS), **R DENINGER** (FRG) *et al.*  
Analytical application of circular dichroism, **N PURDIE** (USA).  
Conventional source excited atomic fluorescence spectrometry, **D J BUTCHER** (USA) *et al.*

A theoretical and experimental study of platform furnace and probe furnace in graphite furnace atomic absorption spectrometry, **S WU**, **C L CHAKRABARTI** & **J ROGERS** (Canada).

**Indexed/Abstracted in:** *Chemical Abstracts*



## Subscription Information

1988: Volume 11 (6 issues)  
ISSN: 0884-1837 (327)

# PROGRESS IN BIOPHYSICS & MOLECULAR BIOLOGY

An International Review Journal

Editors: **DENNIS NOBLE**, *Holywell Manor, Manor Road, Oxford OX1 3UH, UK* & **TOM L BLUNDELL**, *Department of Crystallography, Laboratory of Molecular Biology, Birkbeck College, London WC1E 7HX, UK*

*Progress in Biophysics & Molecular Biology* covers the ground between the physical and biological sciences. It indicates to the physicist the great variety of unsolved problems awaiting attention in the biological sciences. The biologist and biochemist will find that this journal presents new and stimulating ideas on structural and functional problems of the living organism.

This journal will be of particular interest to biophysicists, biologists, biochemists and molecular biologists. Relevant papers are welcomed for editorial consideration.

## A Selection of Papers

The effect of the base sequence on the fine structure of the DNA double helix, **Z SHAKKED** (Israel) &

**D RABINOWICH** (Israel).

Chemical electric field effects in biological macromolecules, **E NEUMAN** (FRG).

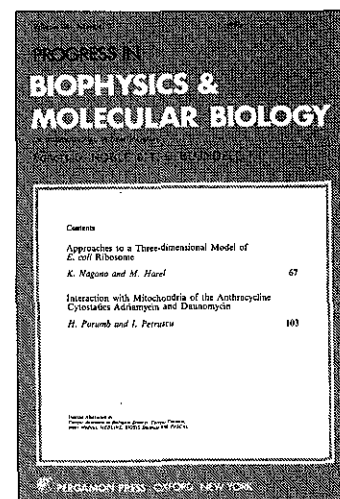
The structure of spherical viruses, **L LILJAS** (Sweden).

The modelling of electrostatic interactions in the function of globular proteins, **N K ROGERS** (UK).

Approaches to a three-dimensional model of *E. coli* ribosome, **K NAGANO** (Japan) & **M HAREL** (Israel).

Interaction with mitochondria of the anthracycline cytostatics adriamycin and daunomycin, **H PORUMB** (Romania) & **I PETRUSCU** (Romania).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), Index Medicus, MEDLINE, BIOSIS Database*



## Subscription Information

1988: Volumes 51 & 52  
(6 issues)  
ISSN: 0079-6107 (408)

# NUCLEAR TRACKS AND RADIATION MEASUREMENTS

Including Thermoluminescence

(International Journal of Radiation Applications and Instrumentation Part D)

Editor-in-Chief: **S A DURRANI**, Department of Physics, University of Birmingham, PO Box 363, Birmingham B15 2TT, UK

Associate Editor: **E V BENTON**, Department of Physics, University of San Francisco, San Francisco, CA 94117, USA

*Nuclear Tracks and Radiation Measurements* provides a forum for the exposition of the latest developments in the broad field of radiation measurements, with pre-eminence given to nuclear tracks, thermoluminescence and related phenomena. The scope of the journal includes techniques such as nuclear emulsions, silver-halide type detectors, and track recorders used in high energy physics laboratories (eg. bubble- and spark-chambers). Papers are welcomed on cosmic-ray studies, space-mission based observations, basic energy-transfer phenomena (especially in relation to biological systems), the understanding of radiation-damage effects in materials, as well as those which relate to radiation protection and monitoring.

## A Selection of Papers

Thermal history and length distribution of fission tracks: part II, **R KEIL** (Austria) *et al.*

Fission track age of apatite from the Jurassic and Cretaceous granites in South Korea and its tectonic implications, **MYUNG-SHIK JU** (Korea) *et al.*

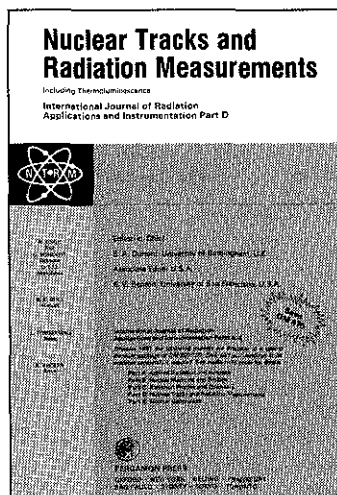
Emission properties of thermoluminescence from natural quartz-blue and red TL response to absorbed dose, **T HASHIMOTO** (Japan) *et al.*

Effect of fission fragments on the electric properties of phosphate glasses and their applications in personal neutron dosimetry, **M A FADEL** (Egypt) *et al.*

A comparison of the solid state photochemistry and electron beam chemistry of *p*-diethylamino-benzaldehyde dipehnylhydrazine, **J PACANSKY** (USA) *et al.*

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents, BIOSIS Database, Engng Ind Monthly & Author Index*



## Subscription Information

1988: Volumes 14 & 15 (8 issues)

ISSN: 0735-245X (286)

Available as Part D of *International Journal of Radiation Applications and Instrumentation*

# NUTRITION RESEARCH

The International Medium for Rapid Publication of Communications in the Nutritional Sciences

Editor-in-Chief: **R K CHANDRA**, Janeway Child Health Center, St John's, Newfoundland A1H 1R8, Canada

Appearing on a monthly basis, *Nutrition Research* is an outstanding forum for comprehensive coverage of the latest nutrition research in man and animals. *Nutrition Research* delivers rapid communication of the newest studies with a maximum of eight weeks from acceptance of articles to publication. Areas of study covered encompass: nutritional biochemistry and metabolism; nutrient requirements in health and disease; digestion and absorption of foods, socioeconomic, cultural, and political factors influencing individual and community nutrition; the impact of food intake on disease response, work performance, and behavior; consequences of nutritional deficiency on growth and development; endocrines; the nervous system and immunity; food intolerance and allergy; nutrient-drug interactions; nutrition and aging; nutrition and cancer; obesity; intervention programs. Regular review articles, book reviews, new patents, editorial comments, announcements, brief communications and software surveys are included.

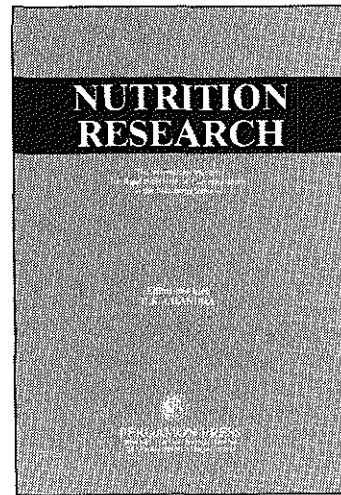
## A Selection of Papers

Immunodeficiency and lymphocyte ecto-5'-nucleotidase activity in the elderly: a comparison of the effect of a trace mineral supplement (1 USRDA) with high zinc (6.7 X USRDA), **J W HOLLINGSWORTH** *et al.*

Calcium supplementation of mothers' milk for low birthweight infants: problems related to absorption and excretion, **S A ATKINSON** *et al.*

Reduced glutathione content of erythrocytes in the newborn: comparison with maternal levels, **O A AJAYI & E M LADIPO**.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, CABS, Science Citation Index, Excerpta Medica, Nutr Abstr, Trop Dis Bull, Abstr Hyg, Nutr Planning, PASCAL-CNRS Database, BIOSIS Database*



## Subscription Information

1988: Volume 8 (12 issues)

ISSN: 0271-5317 (640)

# PROGRESS IN FOOD & NUTRITION SCIENCE

Editor: **R K CHANDRA**, *Janeway Child Health Center, St John's, Newfoundland A1A LRB, Canada*

Spanning the entire field of nutrition in man and animals, with reference to nutrition in plants and micro-organisms, this comprehensive review journal is essential reading for nutritional scientists. Chemists and biochemists, medical practitioners, dieticians, agriculturists, economists and students will also welcome the thorough and integrated coverage for which this publication is recognized.

## A Selection of Papers

Anti-nutritive factors in animal feedstuffs and their effects on livestock, **A BONDI & E ALUMOT**.

Dietary fiber, **A MADAR & R THORNE**.

Nutritional and endocrinological influences on the composition of animal growth, **H J HERSHMANN**.

Zinc and the central nervous system, **J C WALLWORK**.

**Indexed/Abstracted in:** *Current Contents/Agriculture, Biology & Environmental Sciences, Index Medicus, MEDLINE, MEDLARS, CABS, BIOSIS Database*

# PROGRESS IN LIPID RESEARCH

An International Journal

Editor-in-Chief: **RALPH T HOLMAN**, *Hormel Institute of the University of Minnesota, 801-16th Avenue NE, Austin, MN 55912, USA*

Editors: **WILLIAM W CHRISTIE**, *Department of Biological Chemistry, Hannah Research Institute, Ayr, Scotland, UK* & **HOWARD SPRECHER**, *Department of Physiological Chemistry, Ohio State University, Columbus, OH 43210, USA*

Each volume contains critical up-to-date surveys of special branches of this subject so as to cover - in the course of several years - all major developments in the field. It includes topics on analysis, properties, chemistry, metabolism, medicine, nutrition, molecular biology, food science and technology related to lipid chemistry.

## A Selection of Papers

Platelet activating factor: chemical and biochemical characteristics, **D J HANAHAN (USA) & R KUMAR (USA)**.

Animal glycoacylcerolipids, **B L SLOMIANY (USA) et al.**

Lipid metabolism in fish, **D H S GREENE (USA) &**

**D P SELIVONCHICK (USA)**.

The metabolism of (*n*-3) and (*n*-6) fatty acids and their oxygenation by platelet cyclooxygenase and lipoxygenase, **H SPRECHER (USA)**.

Regulation of 5-lipoxygenase pathway product generation in human neutrophils by (*n*-3) fatty acids,

**R I SPERLING (USA) et al.**

Epidemiological studies on food, and intakes of both essential fatty acid families in relation to platelet aggregation and 20:3 (*n*-9) in man, **S RENAUD (France)**.

Biological activities and metabolism of eicosenoic acids in relation to platelet and endothelial function,

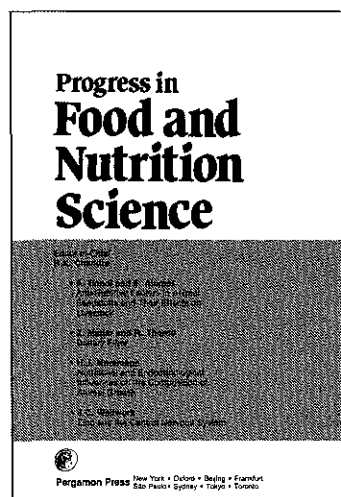
**M LAGARDE (France) et al.**

Placental essential fatty acid transport and prostaglandin synthesis, **D C KUHN (USA) & M CRAWFORD (UK)**.

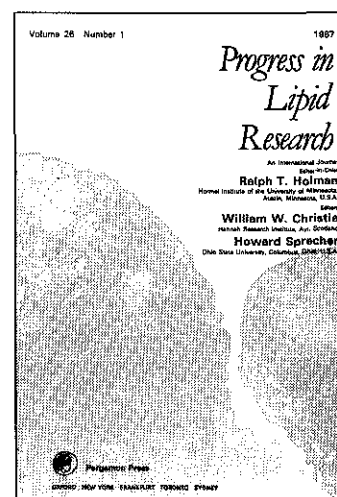
Serum fatty acids and coronary heart disease in Finnish populations, **T NIKKARI (Finland)**.

Epidemiological and clinical studies on optimal nutrition in diabetes, **J I MANN (UK)**.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), Index Medicus, MEDLINE, BIOSIS Database*



**Subscription Information**  
1988: Volume 12 (4 issues)  
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**Subscription Information**  
1988: Volume 27 (4 issues)  
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# OPEC REVIEW

An Energy and Development Forum

Published and distributed on behalf of the Organization of the Petroleum Exporting Countries, Vienna.

Editor-in-Chief: **FADHIL J AL-CHALABI**

Managing Editor: **JAMES AUDU**, *Public Information Department, OPEC Secretariat, Obere Donaustrasse 93, A-1020, Vienna, Austria*

The *OPEC Review*, which is compiled at the OPEC Secretariat, contains a selection of academic papers on energy, Third World development and related economic matters.

Although there is an emphasis on the aims and activities of OPEC Member Countries, much attention is also devoted to the economic progress of other nations, both in the South and the North.

## A Selection of Papers

OPEC and the international oil market: the age of realism,

**A EL-KUWAIZ** (United Arab Emirates).

The impact of export instability on the economic development of Nigeria: a statistical verification, **M I OBADAN** (Nigeria).

Energy indicators, **M-T TABTI** (Austria) &

**W MANDL** (Austria).

Prospects for additional gas contract negotiations,

**M MALDONADO** (Austria).

Oil, natural gas and the new equilibrium in the energy market,

**P DESPRAIRES** (France).

It is time for a consumer-producer dialogue on oil,

**S T HUNTER** (USA) & **C K EBINGER** (USA).

The energy situation: South-East Asia in a world context,

**G D McCOLL** (Australia).

Energy policy responses, strategies and planning in oil-exporting countries, **M V-SAMII** (Austria) & **T IDEMUDIA** (Austria).

Global oil assessments and the search for non-OPEC oil,

**C D MASTERS** (USA).

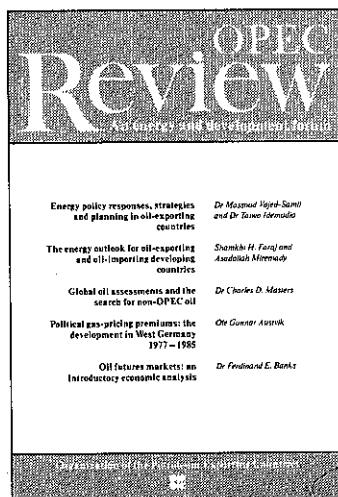
Political gas-pricing premiums: the development in West

Germany 1977-1985, **O G AUSTVIK** (Norway).

Oil future markets: an introductory economic analysis,

**F E BANKS** (Sweden).

The energy outlook for oil-exporting and oil-importing developing countries, **S H FARAJ** & **A MIREMADY** (Austria).



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0277-0180 (672)

# ORGANIC GEOCHEMISTRY

The International Journal for the Rapid Publication of Current Research in Organic Geochemistry and Biogeochemistry

Official Journal of the European Association of Organic Geochemists

Editors-in-Chief: **EARL W BAKER**, *College of Science, Florida Atlantic University, Boca Raton, FL 33431, USA* and **PIETER A SCHENCK**, *Delft University of Technology - Organic Geochemistry Unit, de Vries van Heystplantsoen 2, 2628 RZ Delft, The Netherlands*

*Organic Geochemistry* serves as a specialized research medium for the publication of reports on all phases of geochemistry in which organic substances play a role. The editor welcomes contributions covering a wide spectrum of subjects broadly based on organic chemistry, geology, mineralogy, biogeochemistry, oceanography and hydrology, and including topics related to crude oils, coals, natural gas, shales, and the role of organic substances in the geochemical cycles of various elements.

Reports of paleontological and coal petrographic studies will be considered for publication provided that they are geochemically oriented. Papers will cover the range of research activities in the discipline from the most scholarly, comprehensive variety to the shorter, more topical. Peer review, utilizing the most appropriate mix of respected scientists from academia, government and industry, will be imposed to select the scientifically sound. The journal also publishes reviews of books and announcements of important conferences and meetings and camera ready copy short communications.

## A Selection of Papers

The importance of atmospheric input of terrestrial organic material to deep sea sediments **R B GAGOSIAN** (USA) & **E T PELTZER** (USA).

Bacterial contribution to sedimentary organic matter; a comparative study of lipid moieties in bacteria and recent sediments, **H GOOSSENS** (The Netherlands) *et al.*

Methane oxidation in sediment and water column environments - isotope evidence, **M J WHITICAR** (West Germany) & **E FABER** (West Germany).

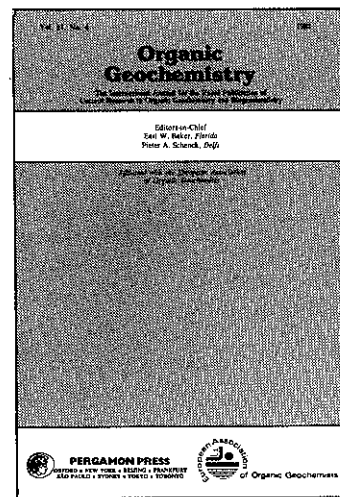
De-A-Steroids in immature marine shales,

**T M PEAKMAN** (UK) *et al.*

Identification of some diterpenoid hydrocarbons in petroleum, **R A NOBLE** (Australia) *et al.*

Molecular fossils from chemical degradation of macromolecular organic matter, **B MYCKE** (West Germany) & **W MICHAELIS** (West Germany).

**Indexed/Abstracted in:** *Current Contents, Current Awareness in Biological Sciences (CABS), Chemical Abstracts, BIOSIS Database, INSPEC, PASCAL-CNRS Database, Petroleum Abstracts*



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1988: Volumes 12 & 13  
(12 issues)  
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# PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY

An International Research and Review Journal

Editors-in-Chief: **C RADOUCO-THOMAS** and **F GARCIN**,  
*Laboratories of Neuro-Psychopharmacology, RADA Unit, Laval University Medical School, Quebec, Canada 91K 7P4*

*Progress in Neuro-Psychopharmacology & Biological Psychiatry* is an international and multidisciplinary medium for the rapid publication of authoritative research papers and review articles dealing with experimental, clinical and social aspects of neuro-psychopharmacology and biological psychiatry. The original contributions deal mainly with the mechanism and site of action of neuro-psychotropic drugs at the various levels of organization of the brain. Experimental papers reporting joint studies at the molecular, cellular and behavioral level are strongly encouraged. Particular attention is paid to the clinical and socio-medical investigations having close relationship with the basic mechanism of action of neuro-psychotropic drugs.

A part of the journal is devoted to disseminating information in the field of research, teaching and other professional activities.

## A Selection of Papers

Psychopharmacological profile of salsolinol,  
**C BULACH** (France) *et al.*

Effects of chronic alcohol consumption in weanling rats on brain gangliosides, **W R KLEMM** (USA) & **D M FOSTER** (USA).

The effect of a putative antidepressant, an O<sub>2</sub>-substituted derivative of barbitone on apomorphine induced hypomotility,  
**J F MENEZ** (Eire) & **B E LEONARD** (Eire).

The calcium entry blockers: anti-manic drugs?,  
**N RENWART** (France) *et al.*

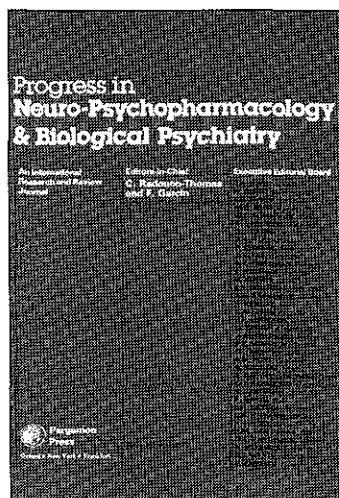
Basal hypersecretion of cortisol in relation to abnormal dexamethasone suppression test response in depression,  
**J A CABRANES-DIAZ** (Spain) *et al.*

Nonlinear pharmacokinetics of chlorimipramine after infusion and oral administration in patients, **H -J KUSS** (FRG) & **G JUNGKUNZ** (FRG).

The effects of caerulein on nocturnal sleep,  
**N WATANABE** (Japan) *et al.*

Altered locomotor activity in neuropsychiatric patients,  
**M H TEICHER** (USA) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, Psychol Abs, Psych INFO, BIOSIS Database*



## Subscription Information

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# PROGRESS IN NUCLEAR ENERGY

The International Review Journal covering all aspects of Nuclear Energy

Executive Editors: **T D BEYNON**, *Physics Department, Birmingham University, Birmingham B15 2TT, UK* and  
**B R SEHGAL**, *Electric Power Research Institute, 3412 Hillview Avenue, Palo Alto, CA 94304, USA*

*Progress in Nuclear Energy* is an international review journal covering all aspects of nuclear science and engineering. In keeping with the maturity of nuclear power, articles on safety, siting and environmental problems are encouraged as are those associated with economics and fuel management. However, basic physics and engineering will remain an important aspect of the editorial policy.

Articles published are either of a review nature or present new material in more depth. They are aimed at researchers and technically-oriented managers working in the nuclear energy field, and generally are written by invitation of the Editors.

## A Selection of Papers

A least squares principle unifying finite element, finite difference and nodal methods for diffusion theory, **R T ACKROYD** (UK).  
Clay as a barrier to radionuclide migration,

**J J W HIGGO** (UK).

Life prediction techniques for combined creep and fatigue,  
**D W A REES** (UK).

Recent developments in LWR radiation field control,  
**C J WOOD** (USA).

Analytical and experimental performance of sphere-pac nuclear fuels, **K L PEDDICORD** (USA) *et al.*

A new treatment of low probability events with particular application to nuclear power plant incidents,

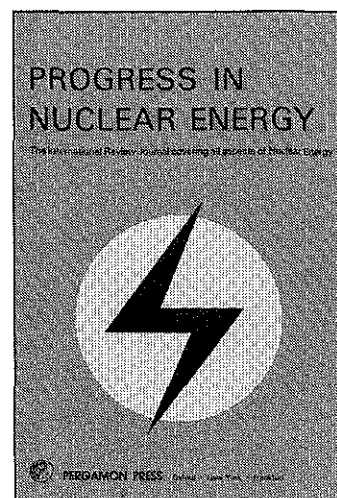
**O H CRITCHLEY** (UK).

Reactor disassembly activities at Three Mile Island Unit Two,  
**H M BURTON** (USA) & **R L FREEMERMAN** (USA).

Acoustical environment of gas-cooled nuclear reactors,  
**R D BLEVINS** (USA).

Safety goals for nuclear power plant regulation,  
**S LEVINE**<sup>+</sup> (USA) & **F T STETSON** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC*



## Subscription Information

1988: Volumes 21 & 22  
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## PAPER AND BOARD ABSTRACTS

The complete information service for the paper and board industry

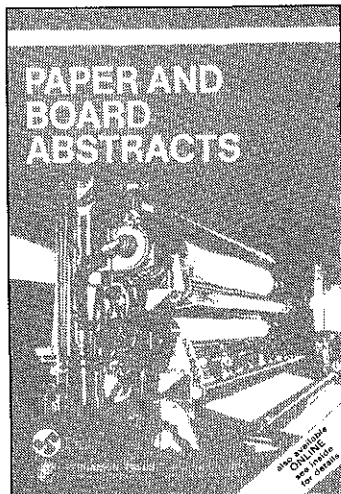
Editor: **DIANA DEAVIN**, *The Research Association for the Paper and Board, Printing and Packaging Industries, Randalls Road, Leatherhead, Surrey KT22 7RU, UK*

The monthly journal *Paper and Board Abstracts* contains summaries (abstracts) of publications and documents issued throughout the world relating to all aspects of paper and board manufacture including commercial information. Each issue contains nearly 300 references prepared by PIRA's own information scientists from international sources including over 150 journals which regularly publish articles on paper and board technology; and from standards and specifications, market reports, technical reports, theses, directories, books, government publications and the national press. *Paper and Board Abstracts* has expanded its coverage to include up-to-date information on new products, new processes, new equipment, new materials, company developments, statistics and market research. *Paper and Board Abstracts* is accessible in a number of other ways: advance abstracts service, selective dissemination of information services, bibliographic search service, and magnetic tape leasing.

*Paper and Board Abstracts* is also available online via Pergamon ORBIT InfoLine.

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ISSN: 0307-0778 (683)  
*Paper and Board Abstracts* -  
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## PATTERN RECOGNITION

The Journal of the Pattern Recognition Society

Editor: **ROBERT S LEDLEY**, *National Biomedical Research Foundation, Georgetown University Medical Center, 3900 Reservoir Road NW, Washington DC 20007, USA*

*Pattern Recognition* is the official journal of the Pattern Recognition Society. The Society was formed to fill a need for information exchange among research workers in the pattern-recognition field. Up to now, we "pattern-recognitionophiles" have been tagging along in computer science, information theory, optical processing techniques, and other miscellaneous fields. Because this work in pattern recognition presently appears in widely spread articles and as isolated lectures in conferences in many diverse areas, the purpose of the journal *Pattern Recognition* is to give all of us an opportunity to get together in one place to publish our work. The journal will thereby expedite communication among research scientists interested in pattern recognition.

We consider pattern recognition in the broad sense, and we assume that the journal will be read by people with a common interest in pattern recognition but from many diverse backgrounds. These include high energy physics, target recognition, biological taxonomy, meteorology, space science, oceanography, character recognition, optical instrumentation, industrial applications, neuron physiology and many others.

The publication policy is to publish (1) new original articles that have been appropriately reviewed by competent scientific people, (2) reviews of developments in the field, and (3) pedagogical papers covering specific areas of interest in pattern recognition. Various special issues will be organised from time to time on current topics of interest to *Pattern Recognition*.

### A Selection of Papers

Solving of optimization and identification problems by the committee methods, **V D MAZUROV et al.**

Discriminant analysis with a stochastic supervisor, **T KRISHNAN & S C NANDY.**

Noise, histogram and cluster validity for gaussian-mixed data, **F YARMAN-VURAL & E ATAMAN.**

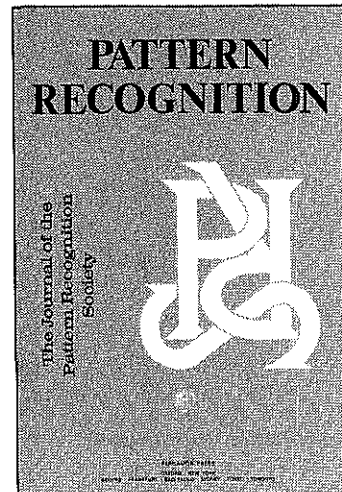
Invariant quantities in regression-induced boundaries under a special linear transformation, **C CHU & M C K YANG.**

A valuation of state of object based on weighted mahalanobis distance, **E KRUSINSKA.**

A Software Survey section is included in this journal

This journal contains a Cauzin Softstrip®, providing each issue's table of contents in a machine-readable form.

**Indexed/Abstracted in:** *Ocular Review, Current Contents, Eng Tech & Applied Sciences, BIOSIS Database, Engineering Industries Monthly & Author Index, Computer Contents, PASCAL/CNRS Database, Geo Abstracts, INSPEC*



**Subscription Information**  
1988: Volume 21 (6 issues)  
ISSN: 0031-3203 (328)

# PROGRESS IN PARTICLE AND NUCLEAR PHYSICS

Editor: **A FAESSLER**, *Universität Tübingen, Institut für Theoretische Physik, D-7400 Tübingen 1, Federal Republic of Germany*

Taking the format of two case-bound volumes a year, the series aims to discuss new developments in the field at a level suitable for the general nuclear and particle physicist and also, in greater technical depth, to explore the most important advances in these areas. Although the majority of the articles will be in one or other of the fields of the title of the series, a particular effort is made to treat topics of an interface type for which both particle and nuclear physics are important, in particular such matters as the role of mesons, isobars and quarks in nuclear structure and the use of complex nuclei for probing fundamental particle symmetries.

Other topics such as the application of nuclear physics in the medical and archaeological fields will also be treated from time to time. Astrophysicists, too, will be particularly interested in the Editor's inclusion of articles on nucleogenesis and related matters.

## A Selection of Papers

Supersymmetry and supergravity, **N DRAGON** (FRG) *et al.*

Low energy antiproton physics in the early LEAR era, **A M GREEN** (Finland) *et al.*

Nuclear physics with strange particles, **B POVH** (FRG).

Giant resonances, **A VAN DER WOUDE** (The Netherlands).

Neutral currents, theory and application, **L M SEHGAL** (FRG).

Light cone perturbation theory and its application to different fields, **J M NAMYSOWSKI** (Poland).

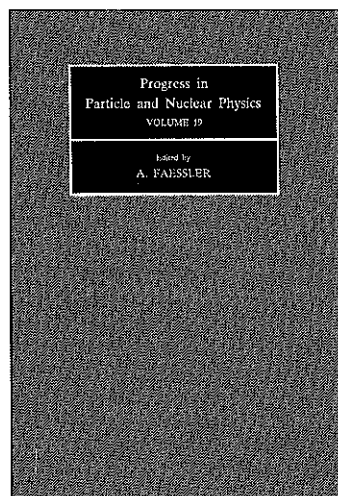
A review of numerical simulation methods, **G BHANOT** (USA).

Isobar degrees of freedom and the nuclear many-body problem, **H MÜTHER** (FRG).

Single particle degrees of freedom in the interacting boson model, **O SCHOLTEN** (USA).

The experimental discovery of the intermediate vector bosons  $W^+$ ,  $W^-$  and  $Z^0$  at the CERN pp collider, **E RADERMACHER** (FRG).

Indexed/Abstracted in: *Chemical Abstracts*



## Subscription Information

1988: Volumes 20 & 21  
(2 volumes)  
ISSN: 0146-6410 (419)

# PROGRESS IN PLANNING

Editors: **DEREK R DIAMOND**, *London School of Economics and Political Science, Houghton Street, London WC2A 2AE, UK* and **J B McLOUGHLIN**, *School of Environmental Planning, University of Melbourne, Parkville, Victoria, Australia 3052*

*Progress in Planning* provides rapid publication of extended papers drawn from recent research in planning. A wide range of interdisciplinary interests is covered: sociology (and in particular urban sociology), economic, rural, urban, transport and population geography, demography, environmental studies, architecture, socio-economics, transportation, highway and traffic engineering, social science and administration, operational research, research and development, long-range planning and technological forecasting, computer and management information systems and management studies.

Individual reports are available for separate purchase.

## A Selection of Issues

Nondecision-making and community power: residential development control in rural areas, **H BULLER** (UK) & **K HOGGART** (UK).

Architecture, society and space - the high-density question re-examined, **A R CUTHBERT** (Hong Kong).

The new urban studies literature: a review with special reference to Australia, **M HUXLEY** (Australia) &

**J B McLOUGHLIN** (Australia).

Community influence on local planning policy,

**A G SMITH** (UK) *et al.*

Structure and agency in the formation of national urban policy in the USA 1976-1980, **D WILMOTH** (Australia).

Location, technology and industrial organisation in UK services, **J HOWELLS** (UK) & **A E GREEN** (UK).

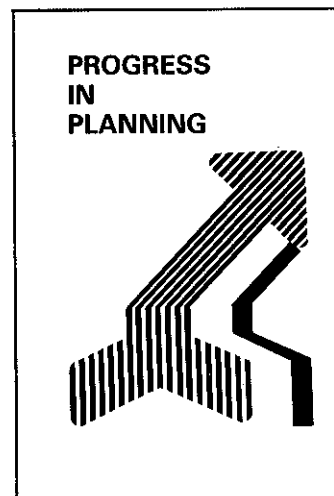
Community leadership and self-help housing, **P WARD** (UK) & **S CHANT** (UK).

Retail innovation and planning, **A GIBBS** (UK).

Mortgage finance and owner occupation in Britain and West Germany, **M BALL** (UK) *et al.*

Planning the Arab city: the cases of Tunis and Rabat,

**A M FINDLAY** (UK) & **R PADDISON** (UK).



## Subscription Information

1988: Volumes 29 & 30  
(6 issues)  
ISSN: 0305-9006 (409)

# PERSONALITY AND INDIVIDUAL DIFFERENCES

An International Journal of Research into the Structure and Development of Personality, and the Causation of Individual Differences

Editor: **H J EYSENCK**, *Institute of Psychiatry, De Crespigny Park, Denmark Hill, London SE5 8AF, UK*

The journal is devoted to the publication of articles (experimental, theoretical and review) which aim to integrate as far as possible the major factors of personality with empirical paradigms from experimental, physiological, animal, clinical, educational, criminological or industrial psychology or to seek an explanation for the causes and major determinants of individual differences in concepts derived from these disciplines. The journal is concerned with both genetic and environmental causes (provided contributors use appropriate research designs and techniques of analysis), and is particularly interested in possible interaction effects. The traditional type of work on traits, abilities, attitudes, and other latent structures underlying consistencies in behavior has in recent years been receiving rather short shrift in traditional journals of personality; the journal aims to reinstate it to its proper place in psychology, equal in importance with general experimental work and interacting with it to make up a unitary science of psychology.

## A Selection of Papers

Patterns of mood change, **E HOWARTH & P D YOUNG**.

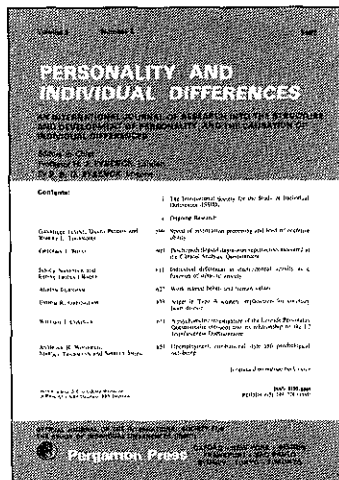
The meaning of Eysenck's personality constructs and scales for Zimbabwean male students, **D MUNRO**.

Extraversion and arousal: effects of attentional conditions on electrodermal activity, **B D SMITH et al.**

Behavior pattern A: reward, fight or punishment?,

**T De FLORES & M VALDES**.

Indexed/Abstracted in: *PASCAL-CNRS Database, BRS Database*



Subscription Information  
1988: Volume 9 (6 issues)

# PETROLEUM CHEMISTRY USSR

Scientific Translation Editor: **E V WHITEHEAD, UK**

There is a vast world literature on petroleum and its products and the contributions in the field emanating from Russia are of great importance. *Petroleum Chemistry USSR* publishes translations of many of the more important papers appearing in the Russian journal *Neftekhimiya*, dealing mainly with the chemistry of petroleum and its use as a base for the manufacture of industrial products. These papers are of value and interest to the researcher, the laboratory chemist and to all those dealing with the practical aspects of petroleum technology.

*Petroleum Chemistry USSR* has a wide coverage and includes papers on the analysis, physical and chemical properties, and behaviour of individual petroleum constituents. Complementary papers cover the mechanism and application of a wide spectrum of processing reactions, featuring particularly catalytic oxidation and reduction.

*Neftekhimiya* is published six times a year. *Petroleum Chemistry USSR* appears four times a year and besides the full translations of important papers carries full summaries of the remainder.

## A Selection of Papers

Composition and structure of high molar mass polycyclic naphthenic hydrocarbons of petroleum,

**B G NIYAZOV (USSR) et al.**

Hydrocarbons from West Siberian crude oils,

**I A MUSAYEV (USSR) et al.**

Study of the chemical nature of residual bitumen components from West Siberian petroleum,

**T A FILIMONOVA (USSR) et al.**

The composition of asphaltenes and resins of West Siberian petroleum, **I V GONCHAROV (USSR) et al.**

The nature of nitrogen bases of West Siberian crude oils, **O S VORONOVA (USSR), et al.**

Acids of Surakhany crude oil, **YE B FROLOV (USSR) et al.**

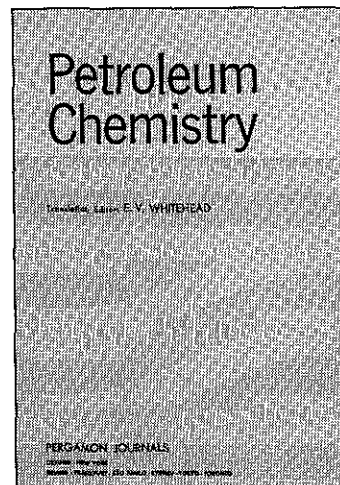
Special features of the composition and chemical structure of "green pigments" -/anomalous components of petroleum vanadylporphyrins, **G S PEVNEVA (USSR) et al.**

Xylene isomerization on boron-containing zeolites,

**B K NEFEDOV (USSR) et al.**

Hydrocarbon transformations during "light" hydro-cracking of distillate raw material, **YE D RADCHENKO (USSR) et al.**

Synthesis of viscosity additives by copolymerization of decylmethacrylate with tetradecene, **A I AKHMEDOV (USSR) & A M LEVSHINA (USSR)**.



Subscription Information  
1988: Volume 27 (4 issues)  
ISSN: 0021-6460 (1988)



# PROGRESS IN REACTION KINETICS

Editors: **K R JENNINGS**, *Department of Chemistry and Molecular Sciences, University of Warwick, Coventry CV4 7AL, UK*, **R B CUNDALL**, *Radiobiology Unit, Medical Research Council, Chilton, Didcot, Oxon OX11 0RD, UK* and **R G WILKINS**, *Department of Chemistry, New Mexico State University, Las Cruces, NM 88005, USA*

*Progress in Reaction Kinetics* has established itself as one of the world's leading journals publishing authoritative review articles and mini-reviews on chemical kinetics. The emphasis is on the quantitative aspects of the subject, but the volumes cover the whole field of kinetics - elementary reactions in gases to complex organic and biochemical processes.

## A Selection of Papers

Exciplexes in photoreaction kinetics, **M G KUZMIN** (Moscow) & **I V SOBOLEVA** (Moscow).

Fast reactions between radicals. Pseudodiffusion control, **A I BURSHTEIN** (USSR) *et al.*

Magnetic isotope effect and isotope selection in chemical reaction, **A L BUCHACHENKO** (USSR).

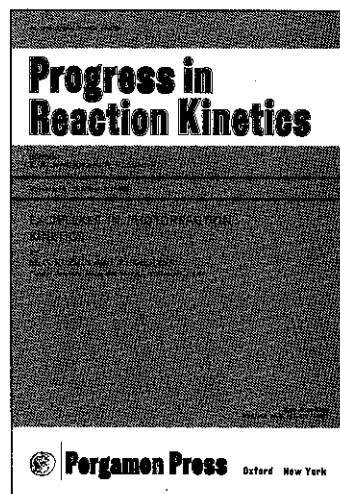
Reaction kinetics and diffusion in condensed matter, **U M GÖSELE** (FRG).

Magnetic isotope effect and isotope selection in chemical reactions, **A L BUCHACHENKO** (USSR).

The positive Muon, a kinetic probe for radical reactions, **E RODUNER** (Switzerland).

Magnetic resonance studies of paramagnetic transients in liquids, **A D TRIFUNAC** (USA) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), BIOSIS Database*



**Subscription Information**  
1988: Volume 15 (4 issues)  
ISSN: 0079-6743 (423)

# RESEARCH IN RETINAL

Editors: **NEVILLE N OSBORNE**, *Nuffield Laboratory of Ophthalmology, University of Oxford, Walton Street, Oxford, UK* and **GERALD J CHADER**, *Laboratory of Vision Research, National Eye Institute, National Institutes of Health, Bethesda MD 20205, USA*

This series highlights new and fast-moving areas in retinal research identified by involved investigators. Work on the retina is important in itself and also because it serves as a relatively simple model for the brain. The series is therefore useful to those interested in the broader aspects of CNS function, as well as more specialised vision researchers. Each paper provides an overview of a research area along with theoretical and practical guidelines for future work. The contributors write from a relatively personal viewpoint and provide new, up-to-date material to keep the reader abreast of current developments, as well as background information of longer term archival interest.

## Contents of Volume 6 (1987)

The differentiation of retinal photoreceptors and neurons *in vitro*, **R ADLER** (USA).

Tissue culture of chorioretinal biopsies,

**F M VAN BOCKXMEER** (Australia) *et al.*

Retinal neurons: their separation and characterization, **P V SARTHY** (USA).

GABA - its role and development in retina,

**D A REDBURN** (USA) & **P MADTES Jr** (USA).

Intracellular staining of retinal neurones: applications to studies of functional organization, **M B A DJAMGOZ** (UK) & **H -J WAGNER** (UK).

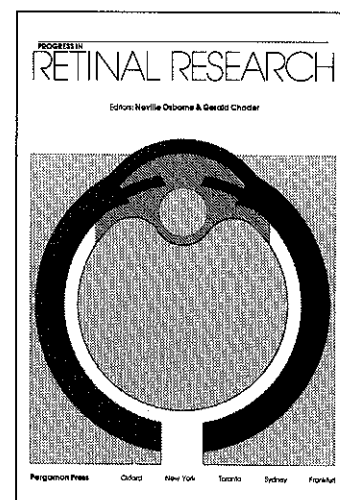
Transducin: structure, function and role in phototransduction, **B K -K FUNG** (USA).

Clinical, biochemical and therapeutic aspects of gyrate atrophy, **M I KAISER-KUPFER** (USA) and **D L VALLE** (USA).

Making decisions in ophthalmology, **A R HILL** (UK).

Behavior of human retinoblastoma cells in tissue culture, **A P KYRITSIS** (USA) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Ocular Review*



**Subscription Information**  
1988: Volume 7  
(1 hardbound issue)  
ISSN: 0278-4327 (664)

# PHOTOCHEMISTRY AND PHOTOBIOLOGY

An International Journal

Official Organ of the American Society for Photobiology

Editor: **PILL-SOON SONG**, *Department of Chemistry, University of Nebraska, Lincoln, NE 68588-0304, USA*

This journal publishes papers on all aspects of photochemistry and photobiology, in particular, analytical articles having either current or foreseeable biological relevance. Appropriate subjects include: bioluminescence, chronobiology, environmental photobiology, photomedicine, photochemistry of biomolecules; photomorphogenesis, photomovement and photoreception; and photosensitization, photosynthesis, phototechnology, spectroscopy, UV, radiation effects and vision. In addition to full length papers, the journal also presents research and technical notes describing new developments or techniques of application and review articles. Yearly reviews of recent literature in selected areas help researchers keep up with the advancements in the field.

## A Selection of Papers

Comparative photochemical analysis of highly purified 124 kilodalton oat and rye phytochromes *in vitro*,

**J C LAGARIAS** *et al.*

Photochemical modifications of *Lac* repressor - II. Tryptophan photochemistry as a probe in studying the allosteric behaviour of the protein, **M SPODHEIM-MAURIZOT** *et al.*

Studies of the efficiency and mechanism of fluorescence quenching reactions using acrylamide and succinimide as quenchers, **M R EFTINK** *et al.*

Effect of growth temperature on lipid composition and ultraviolet sensitivity of human cells, **M A McALEER** *et al.*

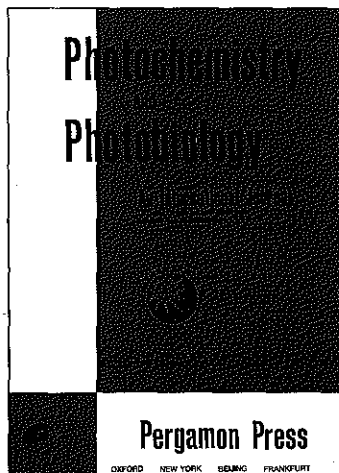
Photosensitized lysis of red blood cells by phototoxic antimalarial compounds, **G A EPLING & M T SIBLEY**.

Oxygen radical mediate cell inactivation by acridine dyes, fluorescein, and lucifer yellow CH, **J P MARTIN & N LOGSDON**.

A comparison of dosimeters used for solar ultraviolet radiometry, **B L DIFFEY**.

Potentially useful antimicrobial and antiviral phototoxins from plants, **G H N TOWERS & J B HUDSON**.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Index Medicus, MEDLINE, MEDLARS, CABS, BIOSIS Database, PASCAL-CRNS Database*



**Subscription Information**  
1988: Volumes 47 & 48  
(12 issues)

## New Editorial Board

# PHYSICOCHEMICAL HYDRODYNAMICS

The International Journal

Co-Editors-in-Chief: **HOWARD BRENNER** and **RONALD F PROBSTEIN**, *Department of Mechanical Engineering, Room 3-246, Massachusetts Institute of Technology, Cambridge MA 02139, USA*

Principal Editors: **PIERRE M ADLER**, *France*, **MARTIN E GLICKSMAN**, *USA*, **B UBBO FELDERHOF**, *FRG*, **HARRY L GOLSMITH**, *Canada*, **J R A PEARSON**, *UK* and **THEO G M VAN DE VEN**, *Canada*

This international journal actively promotes the growth and recognition of physicochemical hydrodynamics as a coherent and structured interdisciplinary science. The scope of the journal includes: reporting the results of new research and the development of useful new techniques; reviewing the state of knowledge in specific branches of physicochemical hydrodynamics in a way which will be comprehensible to experts in other fields; providing useful computer programs for the prediction or analysis of phenomena; announcing or reporting on relevant conferences; book reviews.

## A Selection of Papers

Visualization of the instantaneous velocity profiles in gas-liquid slug flow, **L SHEMER** (Israel) & **D BARNEA** (Israel).

Weeping flow around nonwetting bubbles trapped in constricted noncircular pores, **T C RANSOHOFF** (USA) & **C J RADKE** (USA).

Calculation of mixing and chemical reaction in a turbulent smog chamber, **S S IBRAHIM** (Australia) *et al.*

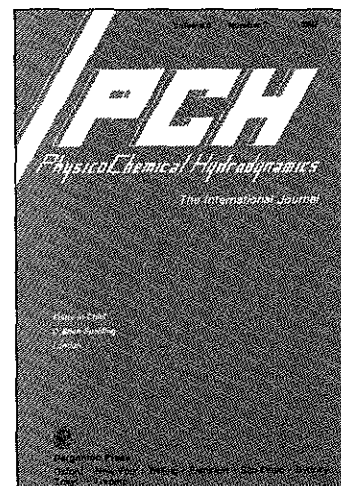
On the deformation of a fluid particle moving radially inside a spherical container, **E CHERVENIVANOVA** (Bulgaria) & **Z ZAPRYANOV** (Bulgaria).

The effect of a solid-phase transition on solidification experiments, **A F A HOADLEY** (UK).

Mixed convection and radiative heat exchange in a radiant energy collecting system, **G CAMERA-RODA** (Italy) *et al.*

On the capillary instability of a rotating liquid jet disintegrating in a vacuum, **M WIENSTEIN** (Israel).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index*



**Subscription Information**  
1988: Volume 10 (6 issues)

# PROTIDES OF THE BIOLOGICAL FLUIDS

An International Review Series devoted to Proteins and Related Studies

Editor: **H PEETERS**, *Grasmusdreef 23, B-1630 Linkebeek, Brussels, Belgium*

*Protides of the Biological Fluids* contains the proceedings of the annual international symposia on protein chemistry which have been held in Belgium since 1953. The broad spectrum of topics covered embraces a wide range of methods, results and protein studies. Topics covered have included:

- Peptide synthesis
- Immunological topics
- Separation of plasma proteins
- Plasma protein genes and gene structure
- Antinuclear antibodies (ANA)
- Chemistry of nuclear antigens
- Autoantibodies in disease
- Antibodies and monoclonals
- Enzymes.

## A Selection of Topics Covered in Recent Volumes

### Volume 33

Plasma protein genes: gene structure, chromosomal location, cloning and expression.

Antinuclear antibodies: chemistry of nuclear antigens, autoantibodies in disease, antinuclear antibody determination.

### Volume 34

Acute phase response: regulatory factors, acute phase proteins, the acute phase response in various syndromes.

Advances in isoelectric focusing: basic technologies using immobilines, separation of enzymes, separation of plasma proteins, separation of animal proteins.

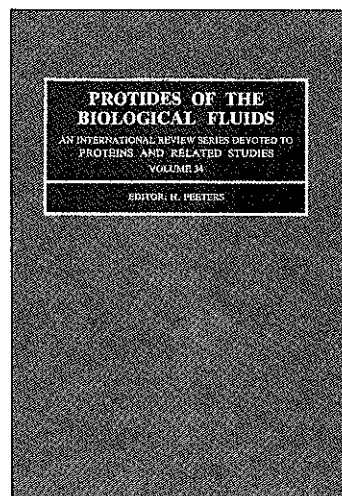
### Volume 35

DNA probes for inherited diseases: thalassemia, haemophilia and x-linked diseases, unknown genes.

Receptors: neuropeptide receptors, receptors on circulating cells, hormone receptors, receptors in cancer.

Conformation and function of biologically active peptides: molecular graphics, NMR studies, antigen-antibody binding.

**Indexed/Abstracted in:** *Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database*



## Subscription Information

1988: Volume 36  
(1 hardbound issue)  
ISSN: 0079-7065 (430)

# PSYCHONEUROENDOCRINOLOGY

In affiliation with the International Society of Psychoneuroendocrinology

An International Journal

Editor: **ROBERT T RUBIN**, *Department of Psychiatry, Harbor/UCLA Medical Center, University of California-Los Angeles, Torrance, CA 90509, USA*

Associate Editor: **HARVEY H FEDER**, *Institute of Animal Behavior, 101 Warren Street, Rutgers University, Newark, NJ 07102, USA*

*Psychoneuroendocrinology*, published 6 times per year, is an international refereed publication featuring papers dealing with the interrelated disciplines of psychiatry, psychology, neurology and endocrinology. The journal, therefore, considers reports dealing with both basic and clinical research in the various branches of neurobiology that relate to psychoneuroendocrinology. Particular consideration is given to interdisciplinary studies on the interrelation of hormones, brain activity and behavioral and emotional states.

*Psychoneuroendocrinology* provides a critical forum for the reporting of both basic and clinical psychoneuroendocrine research. Primary, data-based papers which report new findings are an important feature of this unique publication. The journal is affiliated with the International Society of Psychoneuroendocrinology and reports the Society's news and other matters of importance to its members.

## A Selection of Papers

Vasopressin and oxytocin: hypothalamic modulators of the stress response: a review, **D M GIBBS**.

Central and peripheral effects of 6-hydroxydopamine on exercise performance in rats, **P DEREVENCO et al.**

Somatostatin and regulation of prolactin secretion, **A ENJALBERT et al.**

Neonatal exposure of female ferrets to testosterone alters sociosexual preferences in adulthood, **J T MARTIN & M J BAUM**.

Inhibition of shock-elicited ultrasonic vocalization by opioid peptides in the rat: a psychotropic effect, **T TONOUE et al.**

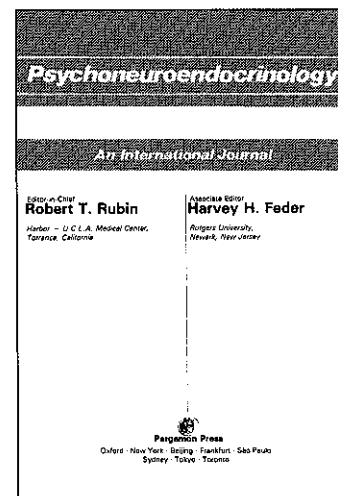
Cortisol and corticosterone response after syn-corticotropin in relationship to dexamethasone suppressibility of cortisol, **A GERKEN & F HOLLSBOER**.

Age effects in serial hypothalamic-pituitary-adrenal monitoring, **J F GREDEN et al.**

The prolactin response to thyrotropin-releasing hormone in depressed patients and normal subjects, **J C GARBUTT et al.**

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Index Medicus, Excerpta Medica, MEDLINE, MEDLARS, Behavioral Medicine Abstracts, CABS Database, Psychological Abstracts, PsycINFO, BIOSIS Database and PASCAL-CNRS Database*



## Subscription Information

1988: Volume 13 (6 issues)  
ISSN: 0306-4530 (473)

# PHYSIOLOGY & BEHAVIOR

An International Journal

Editor: **MATTHEW J WAYNER**, *Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78285, USA*

*Physiology & Behavior*, published by Pergamon Press every 20 days (18 issues per annum), reports original research results in the areas of neural control of eating, drinking, body composition and body fluids; hormonal control of behavior; sleep activity; rhythms; taste and olfaction; learning and memory. Since its premiere issue in 1966, the journal has earned the reputation of being an outstanding information source for researchers interested in the overlapping areas of physiology and behavior.

*Physiology & Behavior* features: original research reports; brief communications describing a new method, technique or apparatus; timely and significant review articles; meeting reports.

Articles aim to integrate anatomy, biochemistry, endocrinology, pharmacology and neurobiology within a behavioral framework using species such as insects, reptiles, birds and mammals. In recent years, studies focusing on human eating, stress, sleep, memory, hormones and behavior have been given increased attention.

## A Selection of Papers

Influences of ACTH 4-10 on event-related potentials reflecting attention in man, **J BORN** *et al.*

The effect of desynchronization on meal patterns of humans living in time isolation, **J GREEN** *et al.*

Age, sex and reproductive status alter the severity of anorexia in zinc deficient rats, **J C KAWAMOTO** *et al.*

The effects of bilateral and unilateral frontal lesions on visual cortical hypersynchronous bursting and behavioral activity, **E W KINGHORN** *et al.*

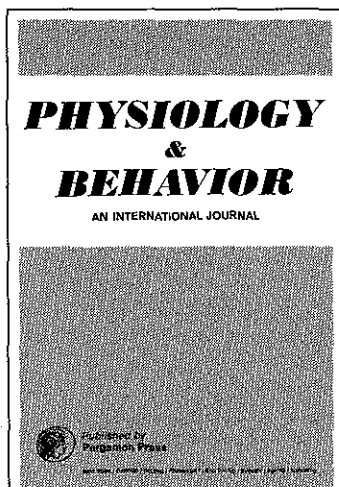
Enhancement of optokinetic responses by lateral hypothalamic areas associated with attack in cats, **C B POTT** & **M F MACDONNELL**.

Changes in [<sup>14</sup>C] deoxyglucose incorporation into rat brain regions during heat-seeking behavior in the cold environment, **A MORIMOTO** *et al.*

Adrenal hormonal indices of stress in laboratory rats, **B H NATELSON** *et al.*

Methodological problems in the study of classical aversive conditioning of adrenocortical responses, **D L PITMAN** *et al.*

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Current Awareness in Biological Sciences (CABS), BIOSIS Database, Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Psychol Abstr, Nutr Abstr, Energy Res Abstr, Energy Data Base, Science Citation Index, Chemical Abstr, IBZ*



## Subscription Information

1988: Volumes 42-44  
(18 issues)  
ISSN: 0031-9384 (385)  
Formerly published by

# PHYTOCHEMISTRY

An International Journal of Plant Biochemistry

An Official Journal of the Phytochemical Society of Europe

Executive Editors: **JEFFREY B HARBORNE**, *Department of Botany, Plant Science Laboratories, University of Reading, Whiteknights, Reading RG6 2AS, UK* and **TERENCE A SMITH**, *Long Ashton Research Station, University of Bristol, Department of Agricultural Sciences, Long Ashton, Bristol BS18 9AF, UK*

*Phytochemistry* covers research on all aspects of pure and applied plant biochemistry, especially that which leads to a deeper understanding of the factors underlying the growth, development and metabolism of plants and the chemistry of plant constituents.

The journal is divided into seven sections:

- Growth and Metabolism
- Ecological Biochemistry
- Cell Culture and Biotechnology
- Biosynthesis
- Chemotaxonomy
- Plant Chemistry
- Short Reports.

Papers which cut across these sections or which are on another aspect of plant biochemistry may be included.

Review articles are published in most recent issues and books are reviewed regularly.

## A Selection of Papers

Biosynthesis of mycosporines: mycosporine glutaminol in *Trichothcium Roseum*, **J FAVRE-BOVIN** (France) *et al.*

Growth and production of cell constituents in batch cultures of *Botryococcus sudeticus*, **R VAZQUEZ-DUHALT** (Switzerland) & **H GREPPEN** (Switzerland).

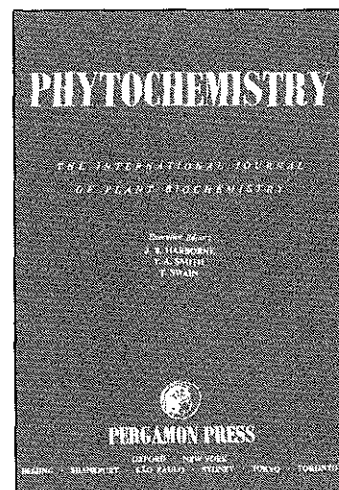
Arachin polymorphism in groundnut (*Arachis hypogaea* L.), **T G KRISHNA** (India) & **R MITRA** (India).

Related glycoprotein lectins from root stocks of wild cucumbers, **W J PEUMANS** (UK) *et al.*

Activation of an NADPH oxidase from maize by dipicolinic acid, **V V S TYAGI** (USA) *et al.*

Polyhydroxyagarofuran derivatives from *Trypterygium Wilfordia* H., **Y TAKAISHI** (Japan) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 27 (12 issues)  
ISSN: 0031-9472 (773)

# RADIATION PHYSICS AND CHEMISTRY

(International Journal of Radiation Applications and Instrumentation Part C)

Editor-in-Chief: A CHARLESBY, Silverspring, Eagle Lane, Watchfield, Swindon, Wiltshire SN6 8LA, UK

*Radiation Physics and Chemistry* provides a medium to assist the growth in knowledge of radiation reactions and processes and of their application in technological and other fields.

Contributions take the form of the following: scientific papers dealing with the interaction of ionizing radiation with matter, the resultant physical and chemical changes, and the mechanisms involved; papers of a more technological nature concerned with present and potential applications; the provision of information on techniques and facilities such as radiation sources, dosimetry and safety measures and on the economics of radiation processing; reviews on specialist topics; notes and short communications; letters to the Editor; book reviews; conference announcements; summaries of conference proceedings; surveys of fields of scientific research which, while not falling within the immediate scope of radiation scientists, have aspects about which they will wish to be kept informed.

## A Selection of Papers

The effect of radiation cross-linking on the mechanical properties of polyethylene sheets, LIU DONGYUAN (China) *et al.*

Hydrogen injection in BWR and related radiation chemistry, K ISHIGURE (Japan) *et al.*

Detection of gamma irradiated pepper and papain by chemiluminescence, A SATTAR (Pakistan) *et al.*

A comparison of the solid state photochemistry and electron beam chemistry of *p*-diethylaminobenzaldehyde diphenylhydrazone,

J PACANSKY (USA) *et al.*

Indexed/Abstracted in: *Current Contents, Aqualine Abstracts, PASCAL-CNRS Database, INSPEC*

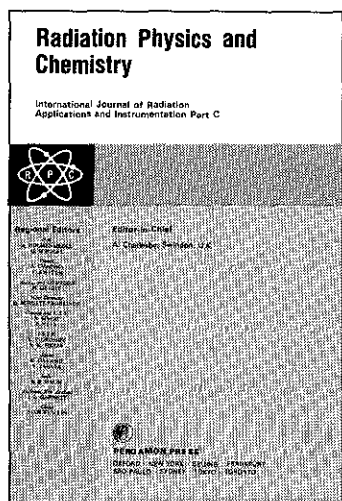
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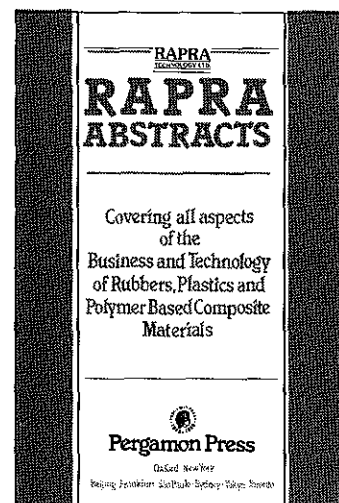
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Ruthenium(III)perchlorate complexes with purines, pyrimidines and nucleosides, **B T KHAN** (India) *et al.*

The interaction of 2-acylpyridines with methyltin, phenyltin and stannic chlorides, **H T BOZIMO** (Nigeria) &

**J J BONIRE** (Nigeria).

Reaction of phenyltin chlorides with silver trifluoroacetate,

**J J BONIRE** (Nigeria).

Facile synthesis of antimony dithiocarbamate complexes,

**R NOMURA** (Japan) *et al.*

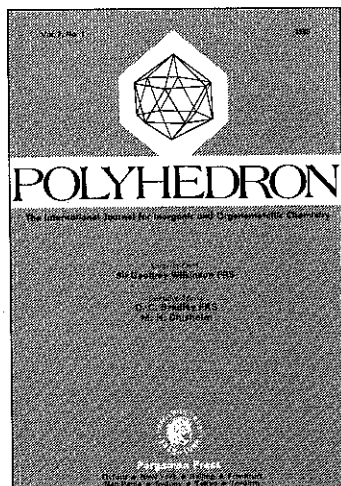
Complexation of some macrocyclic polyethers containing convergent methoxyaryl or phenolic groups with alkali cations in methanol, **P L ZANONATO** (Italy) *et al.*

Synthesis and characterization of copper(II) bis(dizirconium-*ennea*-alkoxides), **R K DUBEY** (India) *et al.*

Thermal behaviour,  $^{119}\text{Sn}$  Mössbauer and IR spectroscopic studies of some diorganotin(IV)carbohydrates,

**J D DONALDSON** (UK) *et al.*

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1988: Volume 7 (24 issues)  
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## POLYMER SCIENCE USSR

A translation of *Vysokomolekulyarnye soyedineniya* (series A)

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*Polymer Science USSR* offers an opportunity for those engaged in polymer research to keep abreast of all major research efforts being made in the USSR through the reading of one journal.

### A Selection of Papers

What's new in the field of polycondensation? Review, **S V VINOGRADOVA** (USSR).

Cycloliner organosiloxane copolymers with organocyclopentasiloxane fragments in the chain,

**O V MUKBANIANI** (USSR) *et al.*

Formation of liquid-crystalline microphases of two-chain nucleic acids and synthetic polynucleotides of low molecular mass,

**S G SKURIDIN** (USSR) *et al.*

Study of gel cation exchangers by the spin probe method,

**T V IVANOVA** (USSR) *et al.*

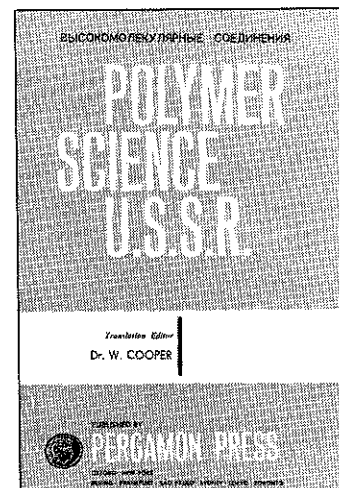
Thermodynamics of the interaction of polyvinyl chloride with copolymers of vinyl chloride and vinyl acetate,

**V S BLINOV** (USSR) *et al.*

Features of the interaction of Cu(II) ions with poly-4-vinyl pyridine in an acid medium, **A S POLINSKII** (USSR) *et al.*

The influence of conformational structure of *cis*-1,4-polyisoprene on the thermodynamic parameters and mechanism of orientational crystallization, **S K KURLYAND** (USSR) *et al.*

Indexed/Abstracted in: *INSPEC*



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# RESEARCH IN DEVELOPMENTAL DISABILITIES

(Incorporating *Applied Research In Mental Retardation* and  
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Editor-in-Chief: **JOHNNY L MATSON** PhD, *Department of Psychology, Louisiana State University, Baton Rouge, LA 70803-5501, USA* Co-Editor: **STEPHEN SCHROEDER** PhD, *Director, Nisonger Center, Ohio State University, 1581 Dodd Drive, Columbus, OH 43210-1205, USA*

*Research in Developmental Disabilities* is aimed at publishing original research of an interdisciplinary nature that has a direct bearing on the remediation of problems associated with developmental disabilities. Manuscripts will be solicited from throughout the world. Articles will be primarily empirical studies, although an occasional position paper or review will be accepted. The aim of the journal will be to publish articles on all aspects of research with the developmentally disabled, with any methodologically sound approach being acceptable. A list of topic areas that is illustrative but not inclusive is applied behavior analysis, pharmacotherapy, traditional assessment, behavioral assessment, speech training and occupational therapy. Our aim is to publish the best available and most current research possible.

## A Selection of Papers

Referential first mention in narratives by mildly mentally retarded adults, **K T KERNAN**.

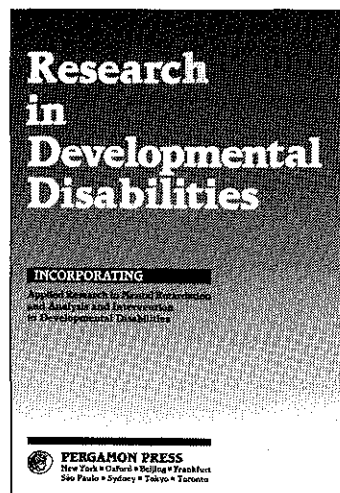
A comparison of external and self-instructional teaching formats with mentally retarded adults in a vocational training session, **T L WHITMAN** *et al.*

Use of partial-sequential withdrawal design to assess maintenance of mentally retarded adults' acquired meal preparation skills, **J E MARTIN & F R RUSCH**.

Use of the alternating treatments design as a strategy for empirically determining language training approaches with mentally retarded children, **R P BARRETT & L A SISSON**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Social Science Citation Index, BIOSIS Database, Index Medicus, MEDLINE, Psychological Abstracts, PsycINFO, PsycSCAN/MR, Excerpta Medica, International Journal of Rehabilitation Research, Behavioral Medicine Abstracts, PASCAL-CNRS Database*



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(incorporating *Conservation & Recycling*, formerly published by Pergamon Press, and *Resources and Conservation*, formerly published by Elsevier)

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## A Selection of Papers

Decomposition of the process of control in using algorithms with forecasting model, **V N BUKOV** (USSR) *et al.*

Robust stability of decentralized output control systems with application to singular perturbation theory,

**D B PETKOVSKI** (USSR).

Some quasiperfect double error correcting codes,

**S M DODUNEKOV** (Bulgaria).

On constructing codes with given distance in Lee-metric,

**A RASCANY** (Hungary).

On optimal control problem for parabolic-hyperbolic system,

**A KOWALEWSKI** (Poland).

On the problem of matrix parameter identification,

**A M USTYUZANIN** (USSR).

On using of bundle methods in nondifferentiable optimal control problems,

**J V OTRATA** (Czechoslovakia) &

**Z SCHINDLER** (Czechoslovakia).

Stochastic hereditary control systems, **I N SINITSYN** (USSR).

A note on numerical aspects of robust testing,

**J A VISEK** (Czechoslovakia).

About one class of games with stable and Pareto optimal solutions, **V A GORELIK** (USSR).

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An International Review Journal

Editor-in-Chief: **ALEC D YOUNG** FRS, *70 Gilbert Road, Cambridge CB4 3PD, UK*

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Propeller aircraft noise legislation - a comprehensive review,

**H H HELLER** (FRG).

Concepts of turbulence and CFD applications,

**L N PERSEN** (Norway).

A review of the technical development of Concorde,

**C S LEYMAN** (UK).

High speed flow visualisation, **P J BRYANSTON-CROSS** (UK).

Braking performance of aircraft tires, **S K AGRAWAL** (USA).

A review of advanced turboprop transport aircraft,

**R H LANGE** (USA).

Fluid dynamics of unsteady separated flow - I. Bodies of revolution,

**L E ERICSSON** (USA) & **J P REDING** (USA).

The vortex patterns of dynamic separation: a parametric and comparative study, **P FREYMUTH** (USA)

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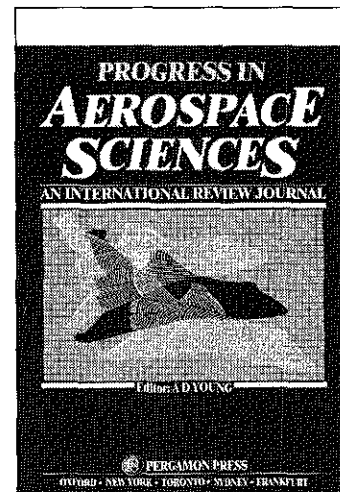
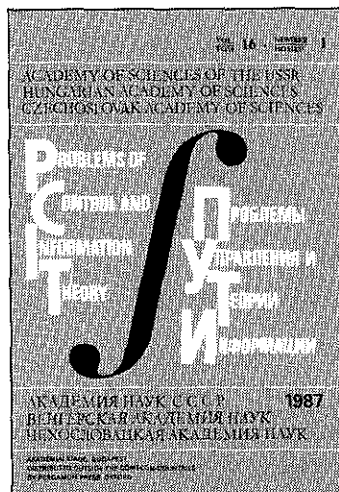
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Intelligent manufacturing systems, **J HATVANY**.  
Intelligent materials processing, **B KRAMER & H LIEBOWITZ**.

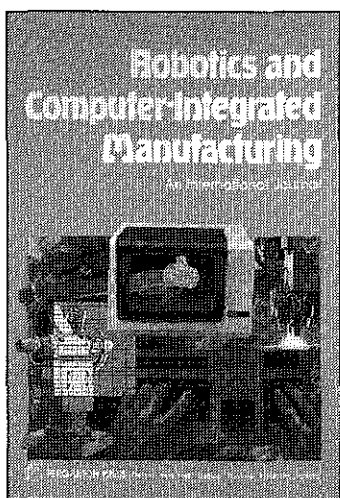
The social effects of intelligent manufacturing systems, **A W J CHISHOLM**.

Education for intelligent manufacturing systems, **L NEMES**.  
Non-hierarchical control of a flexible manufacturing cell, **N A DUFFIE & R S PIPER**.

EXMAS-Knowledge based system for maintenance of complex mechanical systems, **V R MILACIC & V D MAJSTOROVIC**.  
Applying AI in jigs and fixtures design, **A Y C NEE et al**

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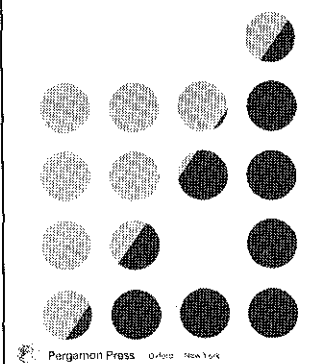
### A Selection of Papers

CVD growth of InGaAs, **K A JONES** (USA).  
 Liquid-solid interface stability, **V N LOZOVSKII** (USSR) *et al.*  
 ACRT: a review of models, **J C BRICE** (UK) *et al.*  
 Preparative methods and growth of rare earth phosphates, **K BYRAPPA** (India).  
 Magnetic properties of layer  $AB_2X_4$  compounds, **S VITICOLI** (Italy).  
 Spinel magnetic semiconductor  $HgCr_2Se_4$ , **A SELMI** (France) *et al.*  
 Crystal growth, characterization and application of II V compounds, **E K ARUSHANOV** (USSR).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, INSPEC*

### Progress in Crystal Growth and Characterization

An International Review Journal



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Editor: **NORMAN A CHIGIER**, *Department of Mechanical Engineering, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213, USA*

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Cool flames, **P G LIGNOLA** (Italy) & **E REVERCHON** (Italy).

Modeling of swirl in turbulent flow systems,

**D G SLOAN** (USA) *et al.*

A survey of recent studies on flame extinction,

**J JAROSINSKI** (Poland).

The mode of occurrence and combustion characteristics of

chlorine in British coal, **W C PEARCE** (UK) &

**J W F HILL** (UK).

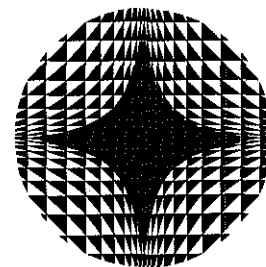
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On the determination of nonlinear partial differential equations admitting integrable systems, **G CHUAHAO & H HESHING.**

On 2-dimensional modulation of interfacial waves, **Z QUNGPU.**

A universal theory of the steady incompressible couette flow with zero shear-stress plane, **R SHENTAO.**

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Electronic energy band structure of molecular crystal TTF-TCNQ - change of energy band structure during peirels phase transition, **Y JIMIN *et al.***

A new hybrid thermochemical cycle for production of hydrogen from water, **L XIAOYUAN.**

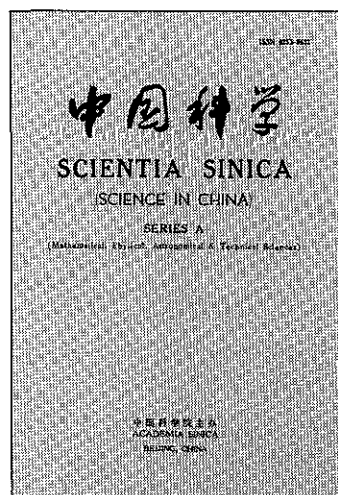
Crystallization and preliminary crystallographic data of the mung bean inhibitor, **L GUANGDA *et al.***

The radiation protective effect of sinapine distributed in cruciferous plants on germinating seeds of barley and wheat, **G RUIQI.**

Jinghua No 1 - a winter wheat variety derived from pollen sporophyte, **H DAOFEN *et al.***

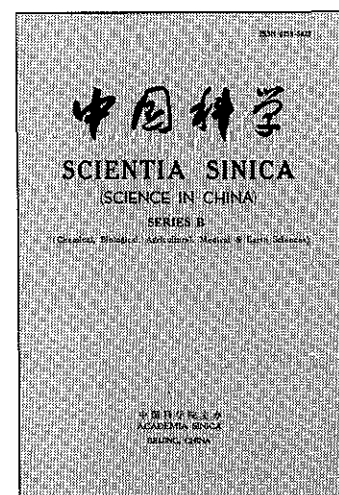
Amino acid sequence of the variable region of an unusual A-type human Bence Jones protein (LEE), **Z DEXU *et al.***

Geochemical principles of alkaline metasomatism, **D LETIAN.**  
Melt and fluid inclusions in igneous rocks in Central Xizang (Tibet), **W BIXIANG.**



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# PROGRESS IN MATERIALS SCIENCE

An International Review Journal

Editors: **J W CHRISTIAN**, *Department of Metallurgy, University of Oxford, Oxford OX1 3PH, UK*, **P HAASEN**, *Institut für Metallphysik, Universität Göttingen, Hospitalstr. 3-5, D-3400 Göttingen, FRG* and **T B MASSALSKI**, *Department of Metallurgical Engineering & Materials Science, Carnegie-Mellon University, Pittsburgh, PA 15213, USA*

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## A Selection of Papers

Martensite and equilibrium phases in Cu-Zn and Cu-Zn-Al alloys, **M AHLERS** (Argentina).

Thermodynamic and kinetic aspects of the crystal to glass transformation in metallic materials, **W L JOHNSON** (USA).

Kinetics of isothermal martensitic transformation, **N N THADHANI** (USA) & **M A MEYERS** (USA).

Dynamic consolidation of metal powders, **W H GOURDIN** (USA).

Spectroscopic techniques to investigate aggregation and precipitation of cation impurities in alkali halides: application to impurity hardening and irradiation sensitivity, **F AGULLO-LOPEZ** (Spain) *et al.*

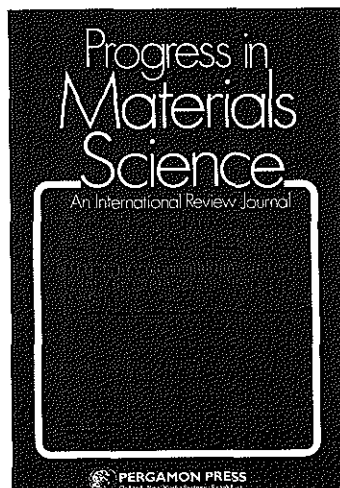
Diffusional formation of ferrite in iron and its alloys, **H K D H BHADSHIA** (UK).

Concentration wave approach in structural and thermodynamic characterization of ceramic crystals, **A G KHACHATURYAN** (USSR) & **B I POKROVSKII** (USSR).

Dislocation modelling of shear in f.c.c. crystals, **P J JACKSON** (UK).

Phase stability under irradiation, **K C RUSSELL** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 32 (4 issues)

# PROGRESS IN NEUROBIOLOGY

An International Review Journal

Editors: **G A KERKUT**, *Department of Physiology and Biochemistry, University of Southampton, Southampton SO9 5NH, UK* and **J W PHILLIS**, *Department of Physiology, Faculty of Medicine, Wayne State University, Detroit, MI 48201, USA*

*Progress in Neurobiology* helps scientists keep abreast of advances in knowledge in the field of neurosciences. Neurobiology is rapidly becoming one of the dominant research areas in the health sciences and an increasing flow of original papers in this field is to be expected. As a result of this, timely and well-prepared review articles which critically evaluate recent developments will become increasingly more important for monitoring true progress.

In addition to the basic disciplines of neurophysiology, neurochemistry, neuropharmacology, structure and behaviour, the journal includes reviews of those areas where the availability of new techniques has led to a multi-disciplinary approach to the problems of the nervous system. It is the intention of the editors that the reviews should be of sufficient clarity to be suitable for assimilation by postgraduate students as well as by research scientists in the field.

*Progress in Neurobiology* is of interest to all research workers in the broad field of neurobiology: research and teaching neurophysiologists, experimental zoologists, neuroendocrinologists, physiological psychologists, biochemists, cytologists, biophysicists and neurologists.

## A Selection of Papers

Physiology plasticity in auditory cortex: rapid induction by learning, **N M WEINBERGER** (USA) & **D M DIAMOND** (USA).

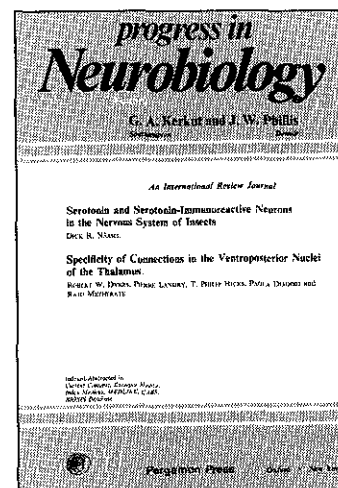
Amino acids and hepatic encephalopathy, **F ROSSI-FANELLI** (Italy) *et al.*

Mechanisms underlying sensitivity to organophosphorus anticholinesterase compounds, **R W RUSSELL** (Australia) & **D H OVERSTREET** (Australia).

Comparative neurobiology of opioids in invertebrates with special attention to senescent alterations, **M K LEUNG** (USA) & **G B STEFANO** (USA).

Integration of posture and locomotion in acute decerebrate cats and in awake, freely moving cats, **S MORI** (Japan).

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Chemical Abstracts, Current Contents, Excerpta Medica, Index Medicus, MEDLINE, BIOSIS Database*



**Subscription Information**  
1988: Volumes 30 & 31  
(12 issues)  
ISSN: 0304-0082 (412)

# SOCIAL SCIENCE & MEDICINE

Editor-in-Chief: **PETER J M McEWAN**, *Glengarden, Bridge of Gairn, Ballater, Aberdeenshire AB3 5UB, UK*

*Social Science & Medicine* provides an international forum for the exchange of ideas and information among social scientists, medical researchers and practitioners, and health administrators and planners. Emphasis is placed on the practical application of research to solve current problems in preventative medicine, health care and the comparative analysis of health systems.

Published papers cover aspects of anthropology, economics, education, geography, psychology, social work and sociology which directly relate to any of the problems of mental and physical health, and all those aspects of medicine, including epidemiology, medical education and practice, psychiatry, public health and nursing which directly relate to any of the social sciences.

The journal is especially concerned with the international aspects of issues and problems, particularly those relevant to the developing world.

## A Selection of Papers

Geographical distribution of cerebrovascular disease mortality and food intakes in Japan, **T OMURA** (Japan) *et al.*

Community attitudes to mental illness in New Zealand twenty-two years on, **D E GREEN** (New Zealand) *et al.*

The nationalisation of the Swedish pharmacies, **J LILJA** (Sweden).

Parental perceptions and attitudes toward asthma and its treatment: a controlled study, **J E DONNELLY** (Australia) *et al.*

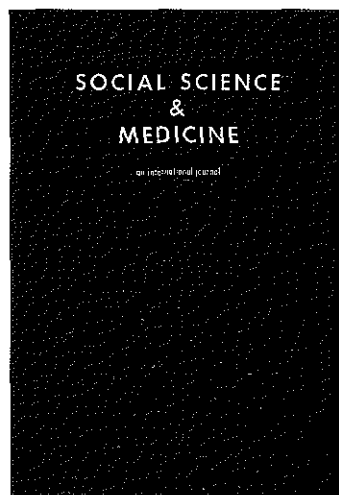
The secret bread tests: selective primary health care or experimentation on human-beings?, **M KAMIEN** (Australia).

Maternal and child factors for reported child abuse among Chinese in Hong Kong, **E M C LAU** (Hong Kong) & **S P B DONNAN** (Hong Kong).

Power and privileges in medical care: an analysis of medical services in post-colonial Nigeria, **S OGOH ALUBO** (Nigeria).

Correlates of stages in the progression from everyday drinking to problem drinking, **R A KNIBBE** (The Netherlands) *et al.*

**Indexed/Abstracted in:** *Current Contents, Index Medicus, MEDLINE, Psychol Abs, Psych INFO, Sociol Abs, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database, Geo Abstracts, Abstracts on Hygiene and Communicable Diseases and Tropical Diseases Bulletin*



## Subscription Information

1988: Volumes 26 & 27  
(24 issues)  
ISSN: 0277-9536 (315)

# SOCIO-ECONOMIC PLANNING SCIENCES

An International Journal

Editor-in-Chief: **BARNETT R PARKER**, *Department of Health Policy & Administration, University of North Carolina, Kron Building, 725 Airport Road, Chapel Hill, NC 27514, USA*

*Socio-Economic Planning Sciences* is devoted exclusively to the quantitative analysis of interdisciplinary problems arising in the area of socio-economic planning. Contributions dealing with applications of systems analysis to the planning of public welfare and community services are particularly welcome.

Typical topics include:

*The interaction of various segments of society and technology, for example, the effects of government health policies on the utilization and design of hospital facilities; the relationship between housing density and the demands on public transportation facilities; patterns of urban development and pollution.*

*More effective utilization of existing resources, for example, stochastic models of out-patient arrivals and the implication to hospital organization; systems analysis of fire outbreaks and its relevancy to the location of fire stations; urban growth patterns and crime protection.*

*Anticipation of future needs for social services, for example, the relationship between industrial growth and the development of the educational resources of the under-developed areas; investigations of future demands for public health resources.*

## A Selection of Papers

General mathematical modelling of a multi-objective community storage facility system, **S B SINHA** (India) & **S V C SASTRY** (India).

Local fiscal impacts of large-scale projects: use of impact models as planning and policy analysis tools, **F L LEISTRITZ** (USA) & **S H MURDOCK** (USA).

Modelling the effects of price competition on the utilization of health manpower, **A LEIKEN** (USA) *et al.*

Impact of increased external debt servicing on government budgetary priorities: the case of Argentina,

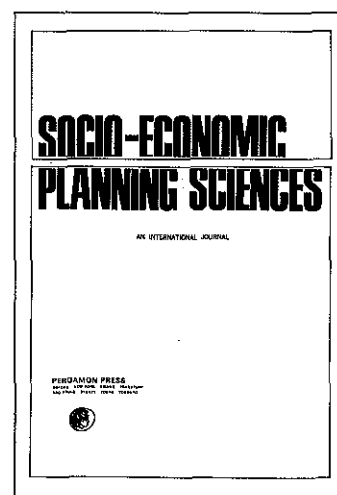
**R E LOONEY** (USA).

Multiple objective decision making on the microcomputer for production/operations management: an overview,

**S M LEE** (USA) & **J P SHIM** (USA).

Crop credit insurance in the agricultural credit system: the Mexican case, **A J HOGAN** (USA) & **R T AUBEY** (USA).

**Indexed in:** *Current Contents, PAIS Bulletin, Management Contents, Soc Abstr, Legal Contents*



## Subscription Information

1988: Volume 22 (6 issues)  
ISSN: 0038-0121 (317)

# PROGRESS IN NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY

Editors: **J W EMSLEY**, *Department of Chemistry, The University, Southampton SO9 5NH, UK*,  
**J FEENEY**, *National Institute for Medical Research, Mill Hill, London NW7 1AA, UK* and **L H SUTCLIFFE**, *Department of Chemistry, Royal Holloway & Bedford New College, The Bourne Laboratory, Egham Hill, Egham, Surrey TW20 OEX, UK*

This journal is devoted to all aspects of nuclear magnetic resonance (NMR) spectroscopy.

Since this is one of the most rapidly expanding branches of science, there is a need for a continuous supply of up-to-date authoritative review articles. The journal takes account of new developments in the fundamentals of the subject and instrumentation and in applications of nuclear magnetic resonance spectroscopy to structural and analytical problems in chemistry, physics, biochemistry and related subjects.

## A Selection of Papers

White noise nonlinear system analysis in nuclear magnetic resonance spectroscopy, **B BLÜMICH** (FRG).

Theoretical and practical aspects of one- and two-dimensional heteronuclear overhauser experiments and selective <sup>13</sup>C T1-determinations of heteronuclear distances,

**K E KÖVER** (Hungary) & **G BATTÁ** (Hungary).

Methods of avoiding the effects of acoustic ringing in pulsed Fourier transform nuclear magnetic resonance spectroscopy, **I P GEROTHANASSIS** (Greece).

Carbon-13 NMR spectroscopy of cardenolides and bufadienolides, **W ROBIEN** (Austria) *et al.*

Applications of NMR methods to the physical chemistry of micellar solutions, **C CHACHATY** (France).

Fourier transform pulsed-gradient spin-echo studies of molecular diffusion, **P STILBS** (Sweden).

Broadband spin decoupling in isotropic liquids, **A J SHAKA** (UK) & **J KEELER** (UK).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts*

# PROGRESS IN OCEANOGRAPHY

A Companion Journal to *Continental Shelf Research* and *Deep-Sea Research*

Editors: **MARTIN V ANGEL**, *Institute of Oceanographic Sciences, Wormley, Godalming, Surrey GU8 5UB, UK* and **ROBERT L SMITH**, *College of Oceanography, Oregon State University, Corvallis, OR 97331, USA*

*Progress in Oceanography* publishes the longer, more comprehensive papers that most oceanographers feel are necessary, on occasion, to do justice to their work. Contributions are generally either a review of an aspect of oceanography or a treatise on an expanding oceanographic subject. The articles cover the entire spectrum of disciplines within the science of oceanography. Major review papers are commissioned by the editors and are written by acknowledged leaders of their field. Occasionally volumes are devoted to collections of papers and conference proceedings of exceptional interest. Essential reading for all oceanographers.

## A Selection of Papers

The storm surge problem in the Bay of Bengal, **T S MURTY** (Canada) *et al.*

Thermostads and circulation in the upper layer of the Atlantic Ocean, **M TSUCHIYA** (USA).

Particulate matter distributions, chemistry and flux in the Panama Basin: response to environmental forcing,

**J K B BISHOP** (USA) *et al.*

Oceanic variability off the Central California Coast, **L C BREAKER** (USA) & **C N K MOOERS** (USA).

Hydrographic variability west of the Galapagos Islands during the 1982-83 El Niño, **S P HAYES** (USA) *et al.*

A diagnostic model of summer circulation on the northwest shelf of the East China Sea, **Y YAOCHU** (China) *et al.*

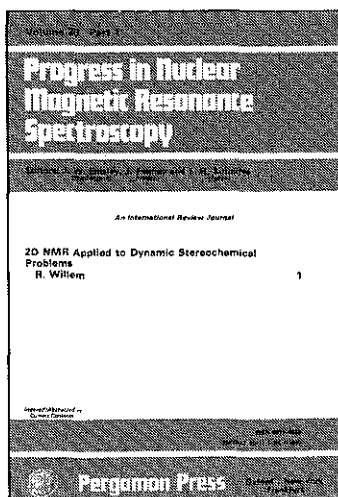
Surge hindcast in the East China Sea, **B H CHOI** (Korea).

Tidal fluctuation of the surface currents of the Kuroshio in the East China Sea, **K RIKIISHI** (Japan) & **T ICHIYE** (USA).

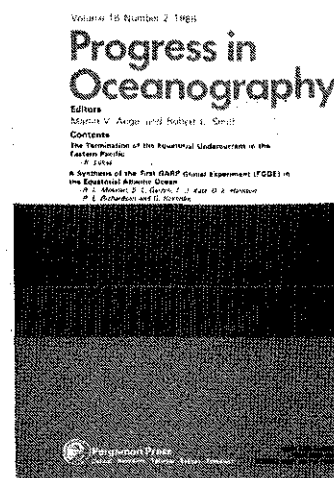
Suspended matter regime in the Yellow Sea,

**J D MILLIMAN** (USA) *et al.*

**Indexed/Abstracted in:** *Current Contents, CABS, BIOSIS Database, Engng Ind Monthly & Author Index, INSPEC*



**Subscription Information**  
1988: Volume 20 (6 issues)  
ISSN: 0070-6565 (420)



**Subscription Information**  
1988: Volumes 20 & 21  
(8 issues)  
ISSN: 0079-6611 (422)

# SOLAR ENERGY

International Journal for Scientists, Engineers and Technologists  
in Solar Energy and Its Application

Official Journal of the International Solar Energy Society®

Editor-in-Chief: **JOHN A DUFFIE**, *University of Wisconsin,  
1500 Johnson Drive, Madison, WI 53706, USA*

*Solar Energy* is the official journal of the International Solar Energy Society®. All forms of solar energy are fully represented, including technical, economic, environmental, social and legal issues. The journal, therefore provides an international forum for workers involved in all aspects of the science and technology of solar energy application, reflecting current research into the sun at work in agriculture, engineering, industry, power and environmental disciplines, with the ultimate aim of making extensive practical use of the knowledge gained.

## A Selection of Papers

An investigation of a surface drift current return pipe system for application on salt gradient solar ponds,

**S S PRAKASH** (USA) *et al.*

Photogalvanic effect in the riboflavin-diethanolamine system,

**K PRAJUNTABORIBAL** (Thailand) &

**N CHAIKUM** (Thailand).

Performances of a water hybrid collector powered by a solar pump, **J-L SCARTEZZINI** (Switzerland).

Salinity profiles in steady-state solar ponds, **D A ANATI** (Israel).

Apparent thermal conductivity of a local adobe building material, **D GOVAER** (USA).

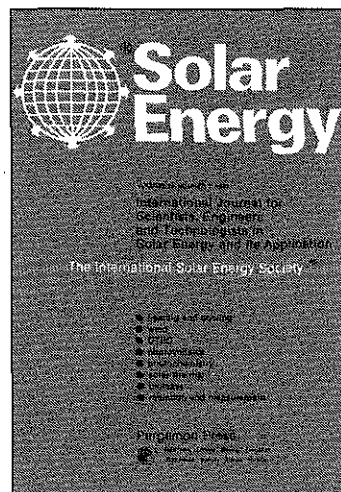
A monthly probability distribution function of daily global irradiation values appropriate for both tropical and temperate locations, **G Y SAUNIER** (Thailand) *et al.*

Transient analysis of a CPC collector with time dependent input function, **S CHAKRAVERTY** (India) *et al.*

The geometry of the shading of buildings by various tree shapes, **M A SATTLER** (UK) *et al.*

Direct and diffuse solar radiation correlations for tilted surfaces in Athens, Greece, **D A KOUREMENOS** (Greece) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, EIC Intelligence, Current Awareness in Biological Sciences (CABS), BIOSIS Database, Engng Ind Monthly & Author Index, INSPEC*



## Subscription Information

1988: Volumes 40 & 41  
(12 issues)  
ISSN: 0038-092X (329)

# SOLID STATE COMMUNICATIONS

An International Journal

Editor-in-Chief: **ELIAS BURSTEIN**, *Department of Physics,  
University of Pennsylvania, Philadelphia, PA 19104, USA*  
Associate Editor-in-Chief: **MANUEL CARDONA**, *Max -Planck  
Institut für Festkörperforschung, Heisenbergstrasse 1, 7000  
Stuttgart 80, FRG*

*Solid State Communications* is an international medium for the publication of short communications on significant developments in the solid state sciences. The journal publishes communications dealing with original, experimental and theoretical research on the physical and chemical properties of solids and condensed systems. The principal fields of interest are the electronic structure of solids, the excitation states of solids and the statistical mechanics of condensed systems.

The primary aim of *Solid State Communications* is to give solid state scientists immediate access, on an international basis, to important work just completed. In keeping with this aim, *Solid State Communications* will also publish short versions of important papers being submitted to national journals.

In response to the tremendous interest in the new high T<sub>c</sub> oxide superconductors and to the large number of theoretical and experimental papers on superconductors and superconductivity being submitted to *Solid State Communications*, the papers on superconductors and superconductivity now appear together as a special section.

## A Selection of Papers

Transient conductivity and conduction noise in NbSe<sub>3</sub>,

**M ODA & M IDO.**

XPS study of rare earth dodecaborides: TmB<sub>12</sub>, YbB<sub>12</sub> and LuB<sub>12</sub>,  
**F IGA** *et al.*

Point contact spectroscopy on thermally shorted Al-Al<sub>2</sub>O<sub>3</sub>-metal junctions, **H SAUER & K KECK.**

Long-range surface polaritons in a supported thin metallic slab,  
**M S TOMAS & Z LENAC.**

Electron irradiation effect on the surface composition of Ar<sup>+</sup> ion bombarded Si-nitride and Si-oxinitride, **V G LIFSHITS &**

**A A SARANIN.**

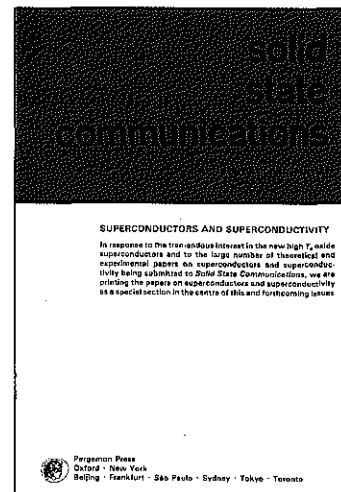
Semiconducting properties of V<sub>2</sub>O<sub>5</sub>-As<sub>2</sub>O<sub>3</sub> glasses, **E CULEA & A NICULA.**

Thermoluminescence in room temperature irradiated MgO:Ni,  
**L DELGADO.**

Polarized infrared spectra of highly oriented polyacetylenes,

**P PIAGGIO** *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



## Subscription Information

1988: Volumes 65-68  
(48 issues)  
ISSN: 0038-1098 (230)

## PROGRESS IN POLYMER SCIENCE

An International Review Journal

Editor: **O VOGL**, Polytechnic University, 333 Jay Street, Brooklyn, NY 11201, USA

Associate Editor: **L S CORLEY**, Shell Development Co, Westhollow Research Center, PO Box 1380, Houston, TX 77001, USA

*Progress in Polymer Science* publishes state-of-the-art overview articles by internationally recognized authorities in polymer science and engineering, one of the fastest growing disciplines. The journal provides a link between original articles, innovations published in patents, and the up-to-date knowledge of technology. It publishes review articles not only on subjects of the traditional fields of polymer science and technology - chemistry, physics and engineering involving polymers; but also of interdisciplinary developing fields such as functional and speciality polymers, biomaterials, polymers and drug delivery, polymers in electronic applications, composites, conducting polymers, liquid crystalline materials and the interphases between polymers and ceramics, and new fabrication techniques, where significant contributions are being made.

### A Selection of Papers

Polymeric fluorocarbon acids and their applications,

**H UKIHASHI** (Japan).

Ligini-polymer systems and some applications,

**D FELDMAN** (Canada) *et al.*

Poly-1-butene: its preparation, properties and challenges,

**L LUCIANI** (Finland) *et al.*

Water structure in polymer membranes,

**P WIGGINS** (New Zealand).

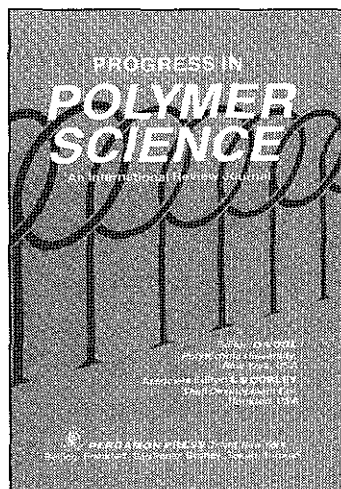
Applications of polymers in solar energy utilisation,

**J RABEK** (Sweden).

Alternating maleic anhydride copolymers, **M RATZSCH** (GDR).

Polyelectrolyte complexes - recent developments and open problems, **B PHILIPP** (GDR) *et al.*

**Indexed/Abstracted in:** *Chemical Abstracts*



### Subscription Information

1988: Volume 13 (4 issues)  
ISSN: 0079-6727 (418)

## PROGRESS IN QUANTUM ELECTRONICS

An International Review Journal

Executive Editor: **T S MOSS**, 2 Shelsley Meadow, Upper Colwall, Malvern, Worcs, UK

Editors: **W D PHILLIPS**, MET B258, National Bureau of Standards, Gaithersburg, MD 20899, USA, **W KAISER**, Physik Department, Technischen Universität, 8000 München, FRG, **P T LANDSBERG**, Department of Mathematics, University of Southampton, Highfield, Southampton SO9 5NH, UK and **Gy FARKAS**, Hungarian Academy of Sciences, Central Research Institute for Physics, H-1525 Budapest, PO Box 49, Budapest, Hungary

*Progress in Quantum Electronics* covers a diverse collection of topics, many of which now have well established technological applications but all of which contain a wide variety of problems and techniques in the realm of pure science. It is mainly concerned with the broad field of interaction of radiation and matter, e.g. in lasers or photodetectors, but also includes solid state topics such as superconductivity and quantum effects in semiconductors.

### A Selection of Recent and Forthcoming Reviews

Ring lasers, **J R WILKINSON** (UK).

Pulsating instabilities and chaos in lasers,

**R G HARRISON** (UK) & **D J BISWAS** (India).

The photo-refractive effect - a review, **T J HALL**, **R JAURA**, **L M CONNORS** & **P D FOOTE** (UK).

The physics of phase conjugate mirrors, **M C GOWER** (UK).

Properties of doped silicon and germanium infrared detectors, **N SCLAR** (USA).

Recent advances in the physics of silicon P - N junction solar cells including their transient response, **S C JAIN** (Canada),

**E L HEASELL** (Canada) & **D J ROULSTON** (Canada).

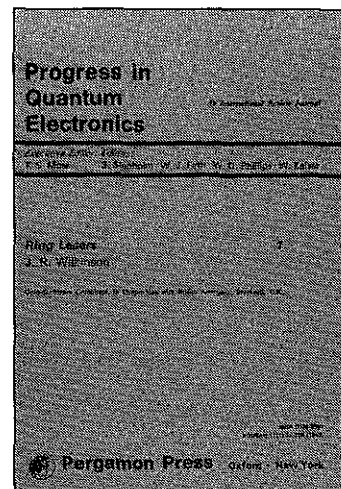
Photoelectromagnetic effect in semiconductors and its applications, **M NOWAK** (Poland).

Photo-initiated deposition and etching of materials relevant to semiconductor devices, **J HAIGH** (UK) &

**M R AYLETT** (Poland).

Solid state lasers, **A PENZKOFER** (FRG).

**Indexed/Abstracted in:** *Chemical Abstracts*



### Subscription Information

1988: Volume 12 (4 issues)  
ISSN: 0079-6727 (410)



# SPACE TECHNOLOGY

## Industrial and Commercial Applications

An International Journal

(Formerly *Earth-Oriented Applications of Space Technology*)

Editor-in-Chief: **LUIGI G NAPOLITANO**, *Institute of Aerodynamics, University of Naples, P le V Tecchio 80, 80125, Naples, Italy*

Space technology has now progressed from the initial phase of exploration to encompass four major areas of utilization which have reached varying degrees of development:

(1) Telecommunications. (2) Monitoring Earth's resources and environment. (3) Using the space environment to further scientific research into natural phenomena including the production of new products and techniques. (4) Fulfilment of mankind's energy needs.

This progress, however, has created significant and steadily increasing information gaps between developers and users of space technology, between system designers and specialists, between policy makers and suppliers. The journal provides the much needed information-bridge between these parties and encompasses surveys, trend analyses, strength and weakness assessments, cost-benefit analysis, legal aspects and social implications. Particular emphasis is focused on practical applications, systems performance and factual information.

The new title *Space Technology* reflects the journal's wide scope to include human activities in space and the growing importance of all related industrial and commercial activities and their relevance to both developing and space-faring nations.

### A Selection of Papers

What the moon offers mankind: a review of the lunar initiative, **S NOZETTE** (USA) *et al.*

Abort implications for space transportation system cargos,

**D J EASTERLY** (USA) & **L E HENSHAW** (USA).

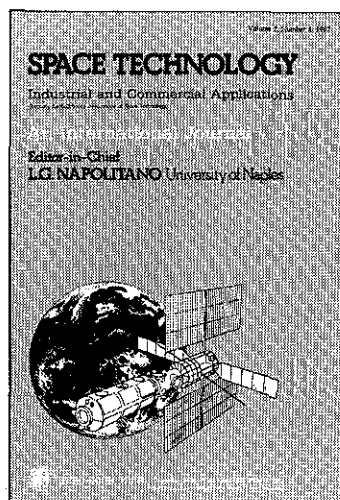
A high energy stage for the national space transportation system, **A J STOFAN** (USA).

New generation reusable single-stage shuttle and expendable single-stage launcher, **R SALKELD** (USA).

Utilization of space stations in the field of life sciences, **M VIEILLEFOSSE** (France).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Cambridge Sci Abs, Engng Ind Monthly & Author Index, World Aviation Directory*



### Subscription Information

1988: Volume 8 (4 issues)

ISSN: 0277-4488 (534)

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# PROGRESS IN SOLID STATE CHEMISTRY

An International Review Journal

Editors: **GERD M ROSENBLATT**, *Lawrence Berkeley Laboratory, University of California, Berkeley, CA 94720, USA* and **WAYNE L WORRELL**, *Department of Metallurgy and Materials Science, University of Pennsylvania, PA 19104, USA*

Solid state research, which has become well known as a substantial endeavour amongst physicists, in fact also involves much chemistry. The literature on the subject is so widely dispersed that it has become difficult to obtain a broad and unified assessment of the present state of knowledge. This series undertakes to represent the view-point of the chemist in solid state by providing up-to-date critical reviews written by acknowledged authorities in the field, together with surveys of research progress and specialized articles devoted to recent developments. Particular emphasis is given to relating physical properties and structural chemistry. Whereas structural chemistry in the past concerned itself mostly with perfect solids, most activity now focuses on imperfections. Entities like vacancies, dislocations, and positive holes are of prime importance in today's solid state chemistry. The authorship is international, and the subject matter is of interest to chemists, physicists, metallurgists, crystallographers, ceramists and engineers interested in the solid state.

## A Selection of Papers

Surface and solid state chemistry of zeolites, **W J MORTIER** (Belgium) & **R A SCHOONHEYDT** (Belgium).

Rare earth-transition metal permanent magnet materials, **W E WALLACE** (USA).

Evaluation of the kinetics and mechanisms of hybridizing reactions, **M H MINTZ** (Israel) & **J BLOCH** (Israel).

Energy conversion and storage using insertion materials, **G BETZ** (FRG) & **H TRIBUTSCH** (FRG).

Freezing and interfaces: density functional theories in two and three dimensions, **A D J HAYMET** (USA).

Layered  $K_2Ti_4O_9$  and the open metastable  $TiO_2(B)$  structure, **M TOURNoux** (France) *et al.*

**Indexed/Abstracted in:** *Chemical Abstracts, Engng Ind Monthly & Author Index, INSPEC*

# PROGRESS IN SURFACE SCIENCE

An International Review Journal

Editor: **SYDNEY G DAVISON**, *Department of Applied Mathematics and Physics, University of Waterloo, Ontario N2L 3G1, Canada*

By separating matter into its three phases, surfaces (or interfaces) play a leading role in nature. As a result of this, surface science has evolved as an interdisciplinary subject, so that phenomena associated with surfaces are of fundamental interest to a wide variety of scientists.

With this in mind, the *Progress in Surface Science* series publishes review articles on as wide a range of surface phenomena topics as possible.

## A Selection of Papers

Surface films and metallurgy related to lubrication and wear, **D H BUCKLEY**.

Ultraviolet bremsstrahlung spectroscopy, **V DOSE**.

Characterization of Si/SiO<sub>2</sub> interface defects by electronic spin resonance, **E H POINDEXTER** & **P J CAPLAN**.

Bioelectrochemistry of cell surfaces, **K DOLOWY**.

Electrochemical surface science: the study of monolayers of ad-atoms and solvent molecules at charged metal interfaces, **B E CONWAY**.

Electron transfer processes with excited molecules at semiconductor electrodes, **R MEMMING**.

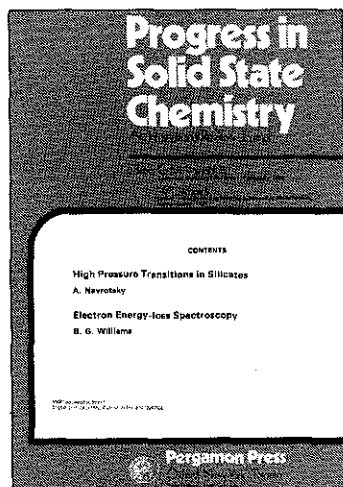
Embedded cluster model studies of impurities at metal surfaces, **J P MUSCAT**.

Planar bilayer lipid membranes, **H TI TEN**.

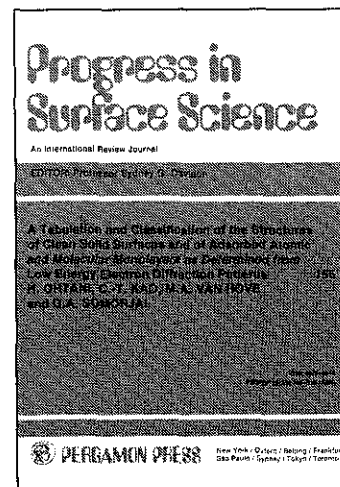
Chemisorption and charge transfer at ionic semiconductor surfaces: implications in designing gas sensors, **W GOPEL**.

Reconstructions and relaxations on metal surfaces, **J E INGLESFIELD**.

**Indexed/Abstracted in:** *Current Contents/Phys, Chem & Earthsci, Chemical Abstracts, Science Citation Index, Index to Scientific Rev, Engng Ind Monthly & Author Index, PASCAL-CNRS Database, INSPEC*



**Subscription Information**  
1988: Volume 18 (4 issues)



**Subscription Information**  
1988: Volumes 24-26  
(12 issues)  
ISSN: 0079-6816 (411)

# STUDIES IN HISTORICAL & PHILOSOPHY OF SCIENCE EVALUATION

Published in cooperation with the International Association for Educational Assessment (Association Internationale pour l'Evaluation Educative)

Editor: **ARIEH LEWY**, *School of Education, Tel Aviv University, Tel Aviv, Israel*

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*Studies in Educational Evaluation* reports on many aspects of educational evaluation including curriculum evaluation, studies of educational systems and organizations, evaluation of teaching/learning strategies and assessment of student performance.

Four types of article are published: empirical evaluation studies, brief abstracts of such studies, theoretical 'reflections' on issues involved in the evaluation of educational programs and articles summarizing the state of the art concerning a specific topic in evaluation in general or in a particular country.

## A Selection of Papers

Finding the question for evaluation research, **J T DILLON** (USA).

The evaluation of clinical legal education, **P V MURRAY** (USA).

Programme evaluation: an empirical study of a degree programme in education, **E ARUBAYI** (Nigeria).

An instructional evaluation study in early childhood education, **O N SARACHO** (USA).

Learning in autonomous student groups: learning skills as a predictor of satisfaction, **D S MIALI** (UK).

A model relating teacher expectations and student difficulties, **N ZEHAVI** (Israel) *et al.*

Factors influencing the decision-making process: an examination of the effect of contextual variables, **D L NEWMAN** (USA) *et al.*

Evaluating alternative high schools in terms of their classroom environments, **B J FRASER** (Australia) *et al.*

# STUDIES IN HISTORICAL & PHILOSOPHY OF SCIENCE

Editor: **NICHOLAS JARDINE**, *Department of History & Philosophy of Science, University of Cambridge, Free School Lane, Cambridge CB2 3RH, UK*

Senior Consulting Editor: **GERD BUCHDAHL**, *Department of History & Philosophy of Science, University of Cambridge, Free School Lane, Cambridge CB2 3RH, UK*

Book Review Editor: **JENNY WARD**.

*Studies in History & Philosophy of Science* is essential reading for students and teachers concerned with the historical, social and intellectual contexts of the sciences and with their methodology and epistemology.

The journal particularly encourages studies which integrate philosophical, historical and sociological considerations. Its orientation is international, with contributions from a wide range of cultural perspectives.

The papers published are of the highest scholarly quality. Since the journal's inception it has proved an invaluable source both for reflective scientists and for workers in the history, philosophy and sociology of science.

Relevant papers are welcome for editorial consideration.

## A Selection of Papers

On the dynamics of mathematical change in the case of Monge and the French Revolution, **E GLAS** (The Netherlands).

Berkeley, Newton and the stars, **K P WINKLER** (USA).

How do scientists reach agreement about novel observations?

**D GOODING** (UK).

James J Gibson's revolution in perceptual psychology: a case study of the transformation of scientific ideas, **E S REED** (USA).

Aether/Or: the creation of scientific concepts,

**N J NERSESSIAN** (The Netherlands).

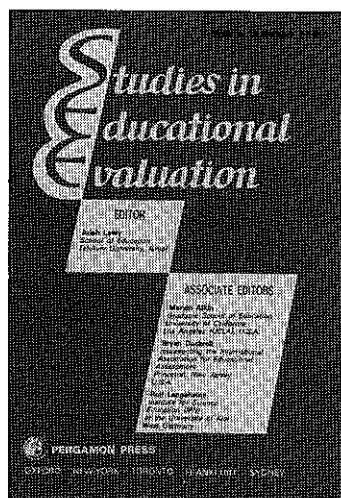
Light hypotheses, **P ACHINSTEIN** (USA).

Jesuit mathematical science and the reconstitution of experience in the early seventeenth century, **P DEAR** (USA).

Pre-theoretical aspects of Aristotelian definition and classification of animals: the case for common sense, **S ATRAN** (France).

The later work of E Schrödinger, **B BERTOTTI** (Italy).

Mach's theory of research and its relation to Einstein, **P K FEYERABEND** (USA).



## Subscription Information

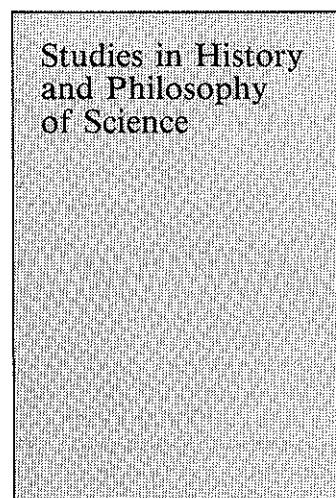
1988: Volume 14 (3 issues)

ISSN: 0191-491X (497)

Combined subscription

available with

*International Journal of Educational Research*



## Subscription Information

1988: Volume 19 (4 issues)

ISSN: 0039-3681 (401)

# PUBLISHING AND NEW MEDIA TECHNOLOGY NEWSLETTER

Published in conjunction with PIRA

Editor: **ALAN AITKEN**, *PIRA, The Research Association for the Paper and Board, Printing and Packaging Industries, Randalls Road, Leatherhead, Surrey KT22 7RU, UK*

This two-weekly newsletter publishes up-to-date information for the publishing and information industry on:

- Company News
- Market Trends
- Statistics
- Product Innovations
- Technological Developments
- Media Competition

It contains news gathered from over 900 published sources, including newspapers, business magazines, technical journals, press releases and market reports. In addition, a major proportion of the items consist of original commentary giving coverage of significant developments in the publishing world. This newsletter is an indispensable source of international business and commercial intelligence for the publishing and information industry.

# QUATERNARY SCIENCE REVIEWS

The International Review and Research Journal

Editor-in-Chief: **DAVID Q BOWEN**, *Queens Building, Royal Holloway and Bedford New College, University of London, Egham Hill, Egham, Surrey TW20 0EX, UK*

*Quaternary Science Reviews* caters for all aspects of Quaternary science, and includes, for example, geology, geomorphology, geography, archaeology, soil science, palaeobotany, palaeontology, palaeoclimatology and the full range of applicable dating methods.

The dividing line between what constitutes the review paper and one which contains new original data is not easy to establish, so *QSR* also publishes papers with new data especially if these perform a review function, or can be so adapted for a wider perspective, for example, as in methods of dating.

All the Quaternary sciences are changing rapidly and subject to re-evaluation as the pace of discovery quickens; thus the eclectic and comprehensive role of *Quaternary Science Reviews* keeps readers abreast of the wider issues relating to new developments in the field.

## A Selection of Papers

Microscopic charcoal as a fossil indicator of fire, **W A PATTERSON** (USA) *et al.*

Mechanisms of collagen racemization in fossil bones: application to absolute dating, **A JULG** (France) *et al.*

Chironomidae (diptera) in paleoecology, **I R WALKER** (Canada).

Was the Pliocene-Pleistocene boundary placed at the wrong stratigraphic level?, **D G JENKINS** (UK).

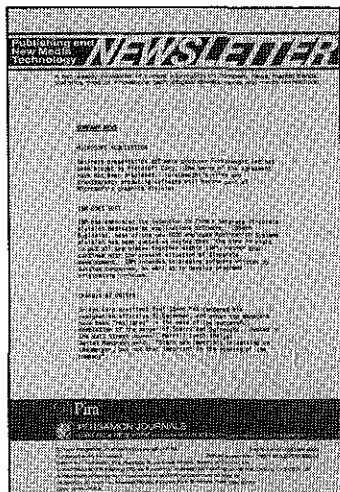
The precision of amino acid geochronology and paleothermometry, **W D McCOY** (USA).

A history of glacial stratigraphy in China, **E DERBYSHIRE** (UK).

Loess stratigraphy in central China and correlation with an extended oxygen isotope stage scale, **G KUKLA** (USA).

Quaternary deposits and glacial stratigraphy in Ireland, **A M McCABE** (UK).

**Indexed/Abstracted in:** *Chemical Abstracts, INSPEC, Geo Abstracts*



## Subscription Information

1988: (26 issues)

ISSN: 0885-6214 (795)

Supplied FREE to subscribers of *Electronic Publishing Abstracts*



## Subscription Information

1988: Volume 7 (4 issues)

ISSN: 0277-3791 (636)

# TALANTA

The International Journal of Pure and Applied Analytical Chemistry

Editor-in-Chief: **R A CHALMERS**, *Department of Chemistry, University of Aberdeen, Old Aberdeen, Scotland, UK*

*Talanta* provides a forum for the rapid publication of original research papers, preliminary communications, full reviews and mini-reviews. Other features are annotations (critical commentaries), analytical data (stability constants etc) and letters to the editor.

In addition to publishing papers in the traditional fields of pure and applied analytical chemistry, and in order to provide an interface between those doing research and those applying the results of research in analytical chemistry, the editors encourage submission of reports on developments and new techniques in fields such as:

Toxic Impurities in Biological Systems • Food Additives • Pharmaceutical and Drug Analysis • Pesticides and Fungicides • Clinical Chemistry • Materials, Science and Engineering • Geochemistry • Environmental Analysis.

## A Selection of Papers

Study on the synergistic extraction of cobalt (II) with lower fatty acids in the presence of heterocyclic amines and some metal ion separations, **S K GOGIA** (India) *et al.*

Speciation of manganese in fresh water-I. Use of EPR studies, **B CHISWELL** (Australia) & **M B MOKHTAR** (Australia).

Untersuchungen zur Anwendung ternärer Komplexe in der Photometrie - IV. Das Chelat FeY-(H4YEDTE) als Reagens für Phenole, **S KOCH** (GDR) & **G ACKERMANN** (GDR).

Adsorptive stripping voltammetric measurements of trace levels of uranium following chelation with Mordant Blue 9, **J WANG & J M ZADEH** (USA).

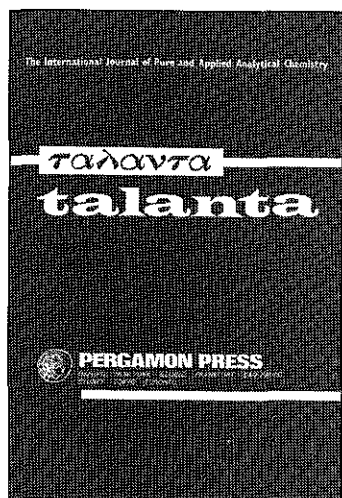
Extraction of zirconium and hafnium thiocyanate with polyurethane foam, **LIU JIN-CHUN** (China) & **A CHOW** (Canada).

Determination of germanium by graphite-furnace atomic-absorption spectrometry, **Y SOHRIN** (Japan) *et al.*

Non-aqueous fluorimetric determination of scandium in silicate rocks, **F GARCIA SANCHEZ** (Spain) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS Database, Aqualine Abstracts*



**Subscription Information**  
1988: Volume 35 (12 issues)  
ISSN: 0039-9140 (308)

# TEACHING & TEACHER EDUCATION

An International Journal of Research and Studies

Editor: **MICHAEL J DUNKIN**, *Centre for Teaching and Learning, The University of Sydney, Sydney, New South Wales 2006, Australia*

Founding Editor: **N L GAGE**, *School of Education, Stanford University, Stanford, CA 94305, USA*

Associate Editors: **DAVID C BERLINER**, *Institute for Advanced Study in the Behavioral Sciences, 202 Junipero Serra Boulevard, Stanford CA 94305, USA* and **SARA DELAMONT**, *University College, Cardiff, UK*

*Teaching & Teacher Education* is a major multidisciplinary and international journal covering all aspects of teaching and teacher education.

The journal covers the following areas:

- Descriptive research - concerned primarily with the description and understanding of teaching as a human phenomenon in its own right;
- Research on teaching effectiveness;
- Research on teacher education, incorporating findings on teaching effectiveness;
- Policy research - the investigation of the demographic, economic, political and social forces that affect the supply, salaries, working conditions, morale and competence of a nation's teaching staff.

## A Selection of Papers

Conceptualizing instructional explanation,

**G G DUFFY** (USA) *et al.*

Short-term developments in student teachers' lesson planning,

**J BROECKMANS** (Belgium).

Academic activities and tasks in first-year teachers' classes,

**E T EMMER** (USA).

Experience, education and the inservice needs of mathematics teachers, **B FRESKO** (Israel) & **D BEN-CHAIM** (Israel).

Curriculum development and implementation as a component of teacher education in Israel, **M SILBERSTEIN** (Israel) & **P TAMIR** (Israel).

Examining thought in action: a theoretical and methodological critique of research on interactive teaching,

**R J YINGER** (USA).

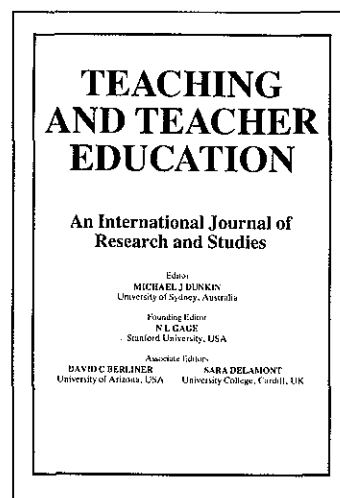
Cooperative versus competitive educational psychology classrooms: a comparative study, **L W SHERMAN** (USA).

Secretary Bennett's teaching: an argument for responsive teaching, **R W SHUY** (USA).

Correlations between teaching practices and class achievement in introductory algebra, **M LECLERC** (Canada) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Soc Sci Citation Index, Int Bibl Period Lit and Int Bibl Book Reviews*



**Subscription Information**  
1988: Volume 4 (4 issues)  
ISSN: 0742-051X (224)

*Also Available Online*

## RAPRA NEW TRADE NAMES in the Rubber and Plastics Industries

Editor: **ELAINE DAVISON**, *Rapra Technology Ltd, Shawbury, Shrewsbury, UK*

*RAPRA New Trade Names* is published annually, and lists new trade names applicable to the rubber and plastics industries as noted by RAPRA from trade literature, journals and books over the previous twelve months.

Subject coverage includes: thermoplastics and thermosetting resins, rubbers, adhesives, compounding materials and chemicals, finished products and machinery.

Over 3,000 trade names together with a full product description are listed. This listing is supported by a separate classification listing and companies list, which allows the publication to be used as a buyer's guide.

*RAPRA Trade Names*, a database containing more than 20,000 entries going back to 1976 and based on *RAPRA New Trade Names*, is also available online via Pergamon ORBIT InfoLine.

### Contents

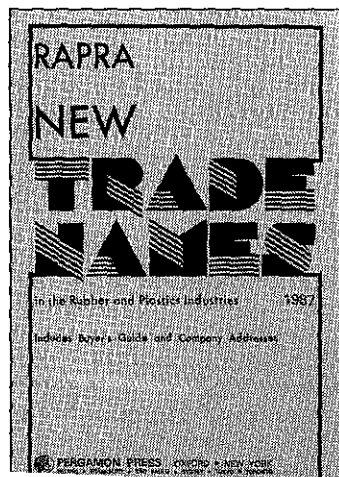
Trade Name List - the trade names are listed in alphabetical order, followed by a description, company name and reference.

Company List - alphabetical company list with details of the trade names they have used.

Classification List - trade names listed with description, company name and reference.

Company Name and Address - alphabetical company listing with addresses.

Journals - list of current journals taken by RAPRA, with abbreviations.



### Subscription Information

1988: (1 issue)

ISSN: 0747-4954 (757)

Combined subscription is available with *RAPRA Abstracts*.

*RAPRA Trade Names Database* - available online

*New in 1987*

## RAPRA REVIEW REPORTS Current Developments in Materials Technology and Engineering

Series Editor: **REBECCA MEREDITH**, *Rapra Technology Ltd, Shawbury, Shrewsbury, UK*

This new series of commissioned reports, written by experts selected for their knowledge of the field, will provide a comprehensive review of items of current topical importance in the field of engineering materials technology and supported by extensive bibliographies and abstracts.

Each report comprises a 12,000 word state-of-the-art review followed by a comprehensive bibliography including a full abstract of each title listed. Each report also includes an extensive index. The bibliographies and abstracts are taken from the *RAPRA Abstracts Database* - a proven source of information for the materials industry. The database contains over 250,000 records dating back to 1972 gleaned from hundreds of international journals, conference proceedings, books, trade and technical literature, standards, patents and government literature.

Every issue will contain three reports; each report is also available for sale separately.

### Forthcoming Reports Include:

Recycling and disposal of plastics packaging

Injection moulding

Polyetheretherketone

Pultrusion

Polyurethane - materials, processing and applications

Polymers in sports and leisure goods

Extrusion

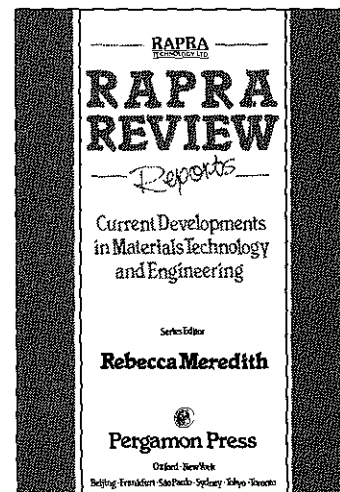
Decorating and coating of polymers

Polymers in agricultural and horticultural applications

Materials handling

Offshore applications of polymers

Flammability and flame retardants



### Subscription information

1988: Volume 2 (4 issues)

ISSN: 0889-3144 (811)

Each report is also available

# TELEMATICS AND INFORMATICS

An International Journal

Editor: **INDU B SINGH**, *President, Pyramid Video Inc., 480 National Press Building, Washington, DC 20045, USA*  
Associate Editor: **JAY LIEBOWITZ**, *George Washington University, Washington, DC 20052, USA*

*Telematics and Informatics* is an international journal that publishes research and review articles in applied telecommunications and information sciences in business, industry, government and educational establishments. It focuses on important current technologies including microelectronics, computer graphics, speech synthesis and voice recognition, database management, data encryption, satellite television, artificial intelligence, and the ongoing computer revolution.

Contributors and readers include professionals in business and industry, as well as in government and academia, who need to keep abreast of current technologies and their diverse applications.

## A Selection of Papers

Classifying adoptors and nonadoptors of four technologies using political activity, media use and demographic variables, **J REAGAN**.

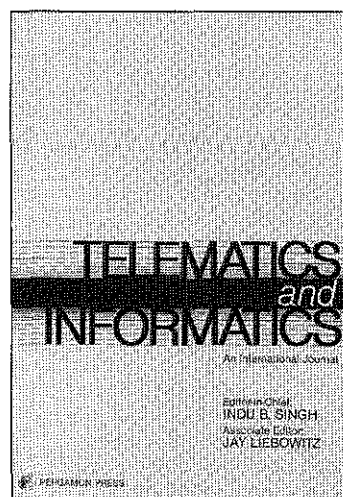
The challenge of the Japanese telecommunications market, **N SETHIA**.

EXSYS vs TOPSI/OPS5 vs Micro-PS: a multicriteria model to select an expert system generator, **E H FORMAN & T J NAGY**.

Micro earth stations: technology and applications, **C DEMAN**.  
Videotex: creating and examining experienced users, **C HEETER et al.**

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Computer Contents, Communications Abstr, Internat'l Bibl Period Lit, Internat'l Bibl Book Reviews, Computer Publishers and Publications*



**Subscription Information**  
1988: Volume 5 (4 issues)  
ISSN: 0736-5853 (703)

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## REPRODUCTIVE AND GENETIC ENGINEERING

Journal of International Feminist Analysis

Managing Editor: **JALNA HANMER**, *University of Bradford, West Yorkshire, UK*

Regional Editors: **RENATE KLEIN** (*Europe*), **ROBYN ROWLAND** (*Australia*), **GENA COREA** (*North and South America*), **RITA ARDITTI** (*North and South America*), **FARIDA AKHTER** (*Asia*), **JANICE RAYMOND** (*Consulting Editor*).

*Reproductive and Genetic Engineering, Journal of International Feminist Analysis*, is a feminist, multidisciplinary and international journal focusing on the new reproductive technologies and genetic engineering, and their impact on women worldwide. The journal will cover areas of theoretical critiques; research assessments; current scientific and medical developments and issues; feminist strategies for resistance; conference reports; book and media reviews; letters in response to articles; and relevant resources.

### A Selection of Forthcoming Papers

New reproductive technologies: the old quest for fatherhood, **VERENA STOLKE** (Spain).

Surrogacy: who pays the price?, **ROBYN ROWLAND** (Australia).

Integrating infertility crisis counselling and feminist practice, **ALLISON SOLOMAN** (Israel).

The spermatic market: surrogate stock and liquid assets, **JANICE RAYMOND** (USA)

New in 1987

## REPRODUCTIVE TOXICOLOGY

Editor-in-Chief: **ANTHONY SCIALLI**, *Reproductive Toxicology Center, 2425 L Street, N.W., Washington, DC 20037, USA*

Drawing from a large number of disciplines, *Reproductive Toxicology* publishes original research on the influence of chemical and physical agents on reproduction. Written by and for obstetricians, embryologists, teratologists, geneticists, toxicologists, andrologists, pediatricians and others interested in detecting potential reproductive hazards, the journal is a forum for communication among researchers and practitioners. *Reproductive Toxicology* seeks in particular to link information on the application of *in vitro*, animal, and clinical research to the practice of clinical medicine. Included in the subscription are the use of the **REPROTOX DATABASE**, with information and references on more than 800 chemical and physical agents and their effects on reproduction, and use of the **Clinical Inquiry Service** for subscribing physicians.

### A Selection of Papers

Ionizing radiation and human reproduction, **A LIONE**.

Neuroendocrine mechanisms controlling the onset of female puberty, **H URBANSKI & S OJEDA**.

Nitrous oxide and male fertility, **D N BUCKLEY & J BRODSKY**.

Critical evaluation of methods for detection and assessment of estrogenic compounds in mammals: strengths and limitations, **D KUPFER**.

Neuroendocrinology of female reproduction: review models and potential approaches for risk assessment, **D HESS**.

Lack of syringe toxicity to amniotic fluid cells in culture, **S SLONIM et al.**

## Reproductive and Genetic Engineering

Journal of International Feminist Analysis

**PERGAMON PRESS**

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### Subscription Information

1988: Volume 1 (3 issues)

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## Reproductive Toxicology

Editor-in-Chief  
Anthony R. Scialli, M.D.



PERGAMON PRESS

New York • Oxford • Beijing • Frankfurt  
São Paulo • Sydney • Tokyo • Toronto

### Subscription Information

1988: Volume 2 (4 issues)

ISSN: 0890-6238 (821)



# TETRAHEDRON COMPUTER METHODOLOGY

The International Electronic Journal for Rapid Publication of Original Research in Computer Chemistry

Editor-in-Chief: **W TODD WIPKE**, *University of California, Santa Cruz, USA*

Chairman of the executive board for Tetrahedron publications  
Sir Derek Barton, USA

## Aims and Scope

*Tetrahedron Computer Methodology* builds on the standards of excellence set by both *Tetrahedron* and *Tetrahedron Letters*, but features a significant development by publishing, simultaneously, in both hard copy and electronic form.

The journal will focus on new methods for handling chemical information, representations, algorithms, and methods for solving chemical problems, particularly related to organic chemistry.

## Topics covered include:

Chemical Information Science • Application of Artificial Intelligence in Chemistry • Chemical Simulation Methods • Storage/Retrieval Systems • Synthesis Planning • Structure Elucidation • Chemical Pattern Recognition • Scientific Document Production.

The electronic version of the journal will contain the full text as published in hard copy, but will provide supplementary information, including:

atomic coordinates of molecules • tables of parameters • actual executable program code • source code, in a form directly useful to the subscriber.

The journal will guarantee publication of acceptable manuscripts within 90 days in near typeset quality print. Contributions will take the form of full papers, communications, reviews, and important news of developments in the field.

Manuscripts will be preferred as ChemText™ files with integrated graphics, although submission via ASCII files or traditional hardcopy is possible.

*Tetrahedron Computer Methodology* will be of prime interest to chemical information scientists, development teams in the chemical software industry and organic chemists who are developing programs or new applications.

## Subscription Information

1988: Volume 1 (3 issues)  
First issue due July, 1988

# TETRAHEDRON LETTERS

The International Journal for the Rapid Publication of Preliminary Communications in Organic Chemistry

Founded jointly by: Sir **ROBERT ROBINSON** and **R B WOODWARD**.

Chairman of the Executive Board of Editors for Tetrahedron Publications: Sir **DEREK BARTON** FRS, *Department of Chemistry, Texas A and M University, College Station, Texas, 77843-3255 USA*

Co-ordinating Editor: **T STEPHEN**, *8 Lewis Close, Risinghurst, Headington, Oxford OX3 8JD, UK*

*Tetrahedron Letters* provides maximum dissemination of outstanding developments in organic chemistry.

The journal is published weekly and covers developments in techniques, structures, methods and conclusions in experimental and theoretical organic chemistry.

Rapid publication of timely and significant research results enables researchers from all over the world to transmit quickly their new contributions to large, international audiences.

## A Selection of Papers

New route to (3RS) (5R) (5-<sup>3</sup>H)- and (3RS) (5S) (5-<sup>3</sup>H)-mevalonolactones, **L O ZAMIR** (Canada) *et al.*

A (formal) total synthesis of (+)-strigol, the witchweed germination factor, **U BERLAGE** (FRG) *et al.*

Phenylation of aromatic and aliphatic amines by phenyllead triacetate using copper catalysis, **D H R BARTON** (USA) *et al.*

Iridium pentahydride complex catalyzed dehydrogenation of alcohols in the absence of a hydrogen acceptor,

**YINGRUI LIN** (China) *et al.*

Synthesis of 3-fluoroethylcyclopentenones via rearrangement of cyclopropyl methoxyallenyl carbinols promoted by hydrogen fluoride-pyridine-metal fluoride, **M SHIMIZU** (Japan) &

**H YOSHIOKA** (Japan) *et al.*

Remote electronic control in the LiAlH<sub>4</sub> reduction of tricyclic *p*-tolylsulfonylethyl enones,

**A J H KLUNDER** (The Netherlands) *et al.*

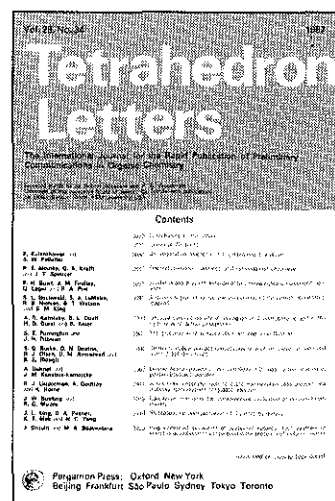
Stereospecific synthesis and stereochemical structure confirmation of dumetorine,

**A S AMARASEKARA** (Israel) & **A HASSNER** (Israel).

Polarised diaryl carbonyl ylids: the specificity of additions to unsymmetric dipolarophiles, **P CLAWSON** (UK) &

**D A WHITING** (UK).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, CABS, BIOSIS Database, PASCAL-CNRS Database*



## Subscription Information

1988: Volume 29 (52 issues)  
ISSN: 0040-4039 (233)

# REVIEWS OF MAGNETIC RESONANCE IN MEDICINE

An International Review Journal

Editor: **JOHN C GORE**, *Department of Diagnostic Imaging, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510, USA*

*Reviews of Magnetic Resonance in Medicine* publishes major review articles covering all aspects of magnetic resonance in medicine. The journal provides comprehensive and timely coverage of precisely defined special areas of research in magnetic resonance in biology or medicine. High resolution studies of macro-molecules, multinuclear spectroscopic studies of metabolism, and scientific and technical aspects of magnetic resonance imaging are also included. Published in two issues per annum, the journal contains articles that are written as authoritative, in-depth discussions and include descriptions of theory, techniques and practical applications.

## A Selection of Papers

Structure and function of proteins and nucleic acids viewed by NMR in solution, **K WUTHRICH**.

Localization methods for *in vivo* NMR spectroscopy, **W AUE**.

The separation of water and lipid components in the presence of field inhomogeneities, **E M HAACKE *et al.***

Design and application of bioreactors for analysis of mammalian cells by NMR, **R J GILLIES *et al.***

Dedicated coils in magnetic resonance imaging, **W T SOBOL**.

Artifacts in magnetic resonance, **R M HENKELMAN & M J BRONSKILL**.

# RHEOLOGY ABSTRACTS

A Survey Of World Literature

Honorary Editor: **S T E ALDHOUSE**, *B P Chemicals Ltd, Research & Development Department, PO Box 21, Grangemouth, Stirlingshire FK3 9XH, UK*

*Rheology Abstracts* is the lineal successor to the British Society of Rheology's *Bulletin*, annually publishing some 900 abstracts prepared by Members of the Society. *Rheology Abstracts* aims at covering any paper which describes work within the science and practice of rheology, the study of deformation and flow. Comprehensive sources of abstracts from many disciplines are used to help increase the area of knowledge available to researchers in this field. In papers where the interest is not mainly rheological, the abstracts concentrate on rheological aspects only. The classifications below give an indication to the range of topics covered.

## Contents

### Theoretical

Phenomenological theories, viscoelastic systems

Phenomenological theories, other systems

Numerical analysis

Thermodynamics and molecular dynamics

### Instruments and Techniques

Deformation of solids

Flow of fluids

Properties of viscoelastic materials

Miscellaneous

### Solids

Metals

Solids other than metals

### Polymers and Other Viscoelastic Materials

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Viscoelasticity, particular materials

Other properties, general discussion

Other properties, particular materials

### Solutions, Pastes and Suspensions

Solutions, properties other than viscoelasticity

Suspensions, emulsions, pastes, etc., general

Suspensions and emulsions, particular systems

Pastes, gels, etc., particular systems

Biological systems

### Liquid Crystals

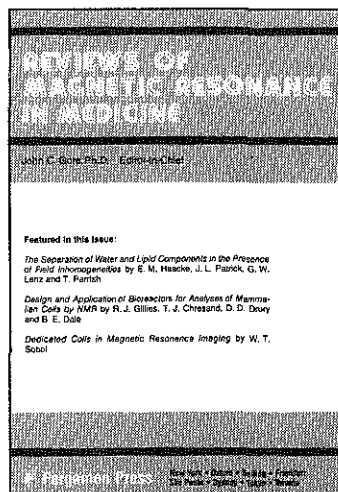
### Granular Materials

### Miscellaneous Flow Studies

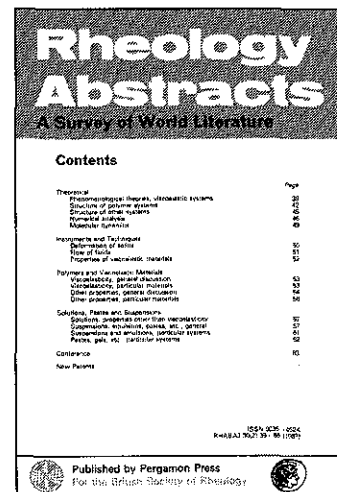
### Conferences

### Annual subject and author index

A New Patents section is included in this journal.



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**Subscription Information**  
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ISSN: 0035-452X (255)

# TOXICOLOGY IN VITRO

Editors: **IAIN F H PURCHASE**, *Central Toxicology Laboratory, Imperial Chemical Industries plc, Macclesfield, Cheshire, UK* and **GORDON C HARD**, *BIBRA, Woodmansterne Road, Carshalton, Surrey, UK*

Associate Editor: **J CARL BARRETT**, *Laboratory of Pulmonary Pathobiology, National Institute of Environmental Health Sciences, PO Box 12233, Research Triangle Park, NC 27709, USA*

*Toxicology in Vitro* is a new specialist journal for the benefit of academic, governmental and industrial laboratories. It aims to stimulate and promote an approach to toxic substance testing that reduces the use of live animals, bringing the twin advantages of cost effectiveness and avoidance of ethical problems. In this ever expanding area of research *Toxicology in Vitro* will provide a much needed bank of accurate information for decision-making in the crucial fields of health and safety.

*Toxicology in Vitro* offers a platform for original research papers and occasional reviews on the use of *in vitro* techniques for determining the toxic effects of chemicals and elucidating their mechanisms of action.

The journal will publish studies which, by utilizing cell or tissue culture, perfused organs, tissue slices, isolated cells or sub-cellular fractions, including enzymes and cell-receptors, investigate the mechanisms of toxic effects encountered *in vivo* or better characterize the relationship between *in vitro* and *in vivo* observations.

## A Selection of Papers

Structure-activity relationship (SAR) models established *in vitro* with the neutral red cytotoxicity assay, **H BABICH** (USA) & **E BORENFREUND** (USA).

Increase in chromosomal abnormalities in Chinese hamster ovary cells treated with BHT *in vitro*, **R M PATTERSON** (USA) *et al.*

Teratogenicity *in vitro* - a comparative study of four antimycotic drugs using the whole-embryo culture system, **R BECHTER** (Switzerland) & **B P SCHMID** (Switzerland).

Use of continuous culture to study the gastric microflora of a hypochlorhydric patient, **T M COUTTS** (UK) *et al.*

Toxicity and metabolism of 1,3-dinitrobenzene in rat testicular cell cultures, **P M D FOSTER** (UK) *et al.*

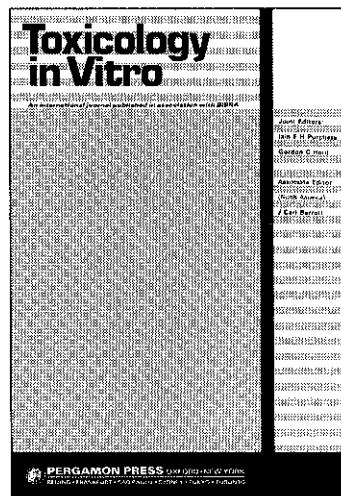
Attenuation of ethanol toxicity in primary myocardial cell cultures from offspring of swim-trained pregnant rats,

**A W BUTLER** (USA) *et al.*

Cephaloridine toxicity in primary cultures of rat renal cortical epithelial cells, **M A SMITH** (USA) *et al.*

Activation of mutagenic and carcinogenic heterocyclic amines by S-9 from the liver of a rhesus monkey, **Y ISHIDA** (Japan) *et al.*

**Indexed/Abstracted in:** *Current Awareness in Biological Sciences (CABS), Current Contents/Life Sciences, Cambridge Scientific Abstracts, Excerpta Medica*



**Subscription Information**  
1988: Volume 2 (4 issues)  
ISSN: 0887-2333 (800)

# TOXICON

An International Journal Devoted to the Exchange of Knowledge on the Poisons Derived from Animals, Plants and Microorganisms.

Official Journal of the International Society of Toxinology

Editor: **PHILIP ROSENBERG**, *Section of Pharmacology & Toxicology, University of Connecticut, School of Pharmacy, Storrs, CT 06268, USA*

*Toxicon* is devoted to the exchange of knowledge on the poisons derived from animals, plants and microorganisms. It provides a medium for the publication of papers which embody the results of original research on the chemical, pharmacological, zootoxicological and immunological properties of naturally occurring poisons. The journal also publishes clinical observations on poisoning where a new therapeutic principle has been proposed or a decidedly superior clinical result has been obtained, as well as material on the use of toxins as tools in studying biological processes.

*Toxicon* publishes review articles on problems related to toxinology, and abstracts of the current literature on venoms, antivenoms and other poisons and antipoisons. To encourage the exchange of ideas, sections of the Journal may be devoted to short communications, letters to the editor, software survey and activities of the International Society on Toxinology, in addition to full-length manuscripts.

## A Selection of Papers

Purification and characterization of two arginine ester hydrolases from *Vipera berus berus* (common viper) venom, **M SAMEL** *et al.*

Effects of the sesquiterpene lactone tetraesters thapsigargin and thapsigargin, from roots of *Thapsia garganica* L., on isolated spinach chloroplasts, **K A SANTARIUS** *et al.*

Characterization of the structure and function of three phospholipases A<sub>2</sub> from the venom of *Agkistrodon halys pallas*, **Y-C CHEN** *et al.*

Re-examination of the specificity of the scorpion *Androctonus australis* Hector insect toxin towards arthropods, **S DE DIANOUS** *et al.*

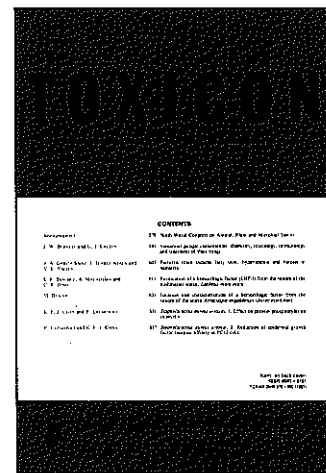
*In vivo* synergy of cardiotoxic and phospholipase A<sub>2</sub> from the elapid snake *Naja mossambica mossambica*, **P E BOUGIS** *et al.*

Presence of proteins and glutamate as major constituents of the venom of the spider *Araneus gemma*, **S L EARLY** & **E K MICHAELS**.

Antibody neutralization of a myotoxin from the venom of *Bothrops asper* (terciopelo), **B LOMONTE** *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences, Excerpta Medica, Index Medicus, MEDLINE, MEDLARS, Current Awareness in Biological Sciences (CABS), BIOSIS Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 26 (12 issues)  
ISSN: 0041-0101 (259)

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## SCIENCE BULLETIN (KEXUE TONGBAO)

An International Journal

Chairman: **Y DUZHENG**, *Academia Sinica, Beijing, People's Republic of China*

*Science Bulletin* aims to provide a rapid publication service for short communications of research currently being undertaken in China. Papers are refereed by a distinguished panel of Editors ensuring that only research at the highest level is included.

Now available in English, this publication provides scientists outside China with a rapid overview of the latest developments in Chinese science and technology. The journal covers all major areas of science and technology including mathematics, chemistry, physics, biology, astronomy, agriculture, engineering materials, medicine, computer science and earth sciences.

### A Selection of Papers

Laser induced emission band in Cs.Ar excimer molecule, **L YIQUN**.

Double sea quark model and the EMC effect, **Z WEI**.

The relation of acoustical coagulation of aerosol particles to sound field parameters, **W YAOJUN & W RONGJUE**.

Study of photodissociation rate of nitrosyl ruthenium nitrates, **Y YUFU et al.**

Electronic structure and chemical bonding of tetra(cyclopentadienyl) cerium ( $Ce-(C_5H_5)_4$ ), **R JINGQING & X GUANGXIAN**.

Separation of uranium isotope in liquid system by CW CO<sub>2</sub> laser, **X BAOYU et al.**

Synthesis of the lanthanum acetate monohydrate and the determination of its dehydration enthalpy, **W SHURONG et al.**

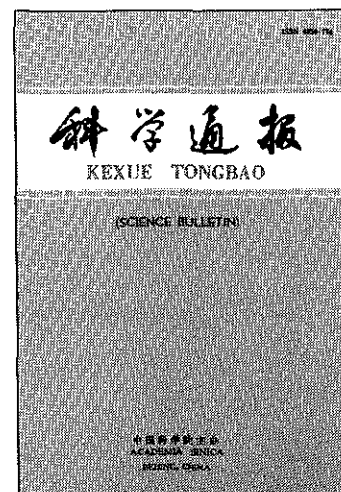
Study on the complex site of transition metal ions with antibiotics, **C LIANG et al.**

Effect of the change of local vertical line deflection on astronomical time observation, **Y JINSHENG**.

Application of Japanese GMS low-cloud winds to wind field analysis, **S GONGWANG et al.**

Division of silurian strata and tabulate and heliolitida assemblages in the Haerke Mountain in Xinjiang, **W BAOYU**.

Indexed/Abstracted in: *Chemical Abstracts*



**Subscription Information**  
1988: Volume 33 (26 issues)  
ISSN: 0250-7862 (788)

# TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY

The official journal of the International Tunnelling Association

Senior Editors: **EINAR BROCH**, *Department of Geology, The Norwegian Institute of Technology, N-7034 Trondheim, Norway* and **CHARLES FAIRHURST**, *Department of Civil and Mineral Engineering, University of Minnesota, Minneapolis, MN55455, USA*

*Tunnelling and Underground Space Technology* is an international journal which publishes authoritative articles encompassing the development of innovative uses of underground space and the results of quality research into improved, more cost-effective techniques for the planning, geo-investigation, design, construction, operation and maintenance of underground and earth-sheltered structures.

The journal provides an effective vehicle for the improved worldwide exchange of information on developments in underground technology - and the experience gained from its use - and is strongly committed to publishing papers on the interdisciplinary aspects of creating, planning, and regulating underground space. Towards this end, up-to-date reports of the International Tunnelling Association (ITA) working groups and important papers from major conferences sponsored by the ITA and other bodies are a regular feature of the journal.

## A Selection of Papers

Built form: the shape of things to come, **D J BENNETT** (USA).  
Underground urban transportation systems - a way to improve our cities, **F BLENEMANN** (FRG).

Examples of benefits of underground urban public transportation systems, ITA Working Group on Costs-Benefits of Underground Urban Public Transportation.

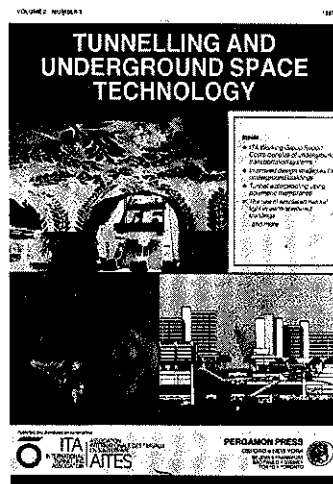
The first metro line in Warsaw, **T ROMANOWSKI** (Poland).

Design considerations for an earth-integrated education center in the Israeli desert, **A RAHAMIMOFF** (Israel) *et al.*

The use of simulated natural light in the design of the earth-sheltered environment, **P C HUGHES** (USA).

Tunnel waterproofing using polymeric membranes, **M CAPUTO** (USA) & **H-P HUEZ** (USA).

**Indexed/Abstracted in:** *Current Contents*



**Subscription Information**  
1988: Volume 3 (4 issues)  
ISSN: 0886-7798 (799)

# ULTRASOUND IN MEDICINE AND BIOLOGY

Official Journal of the World Federation for Ultrasound in Medicine and Biology

Editor: **DENIS N WHITE**, *230 Alwington Place, Kingston, Ontario K7L 4P8, Canada*

The purpose of *Ultrasound in Medicine and Biology* is to promote new understanding and application of this developing technology to researchers and clinicians. Original papers in the journal deal with the physics, instrumentation and biological effects of this form of energy on all living systems, from lower organisms to man. Particular emphasis is placed on the practical application of ultrasonic techniques in clinical medicine. This journal has also developed a reputation for publishing excellent reviews on clinical subjects written by leading figures in the field.

## A Selection of Papers

Age-dependence of the flow velocity in the basal cerebral arteries, **P GROLIMUND** (Switzerland) & **R SEILER** (Switzerland).

The prudent use of diagnostic ultrasound, **P N T WELLS** (UK).  
Doppler ultrasound in aortic stenosis: *in vitro* studies of pressure gradient determination, **J HOLEN** (USA) *et al.*

Exploration of the fetal cerebral blood flow by duplex doppler - linear array system in normal and pathological pregnancies, **P ARBEILLE** (France) *et al.*

Insufficiency of carotid and vertebral flow velocity in cerebrovascular disease: a continuous wave doppler study, **E COLON** (The Netherlands) *et al.*

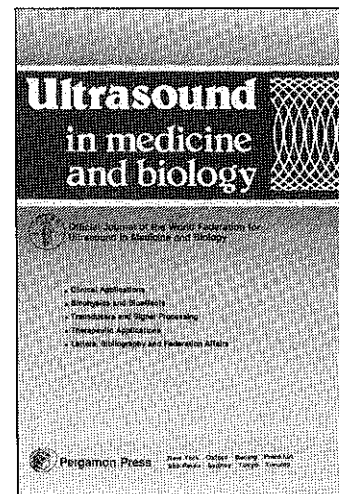
Doppler assessment of aortic stenosis: Bernoulli revisited, **H RIJSTERBORGH** (The Netherlands) & **J ROELANDT** (The Netherlands).

Effects of MHz ultrasound on electrical pain threshold perception in humans, **A R WILLIAMS** (UK) *et al.*

Ultrasonic doppler study of the hormonal response of blood flow in the normal human breast, **M SAMBROOK** (UK) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Clinical Medicine, Current Awareness in Biological Sciences (CABS), Index Medicus, MEDLINE, MEDLARS, Excerpta Medica, Biol Abstracts, Applied Mechanics Review, Electronics & Communications Abstracts, Abstr Safety Science, PASCAL-CNRS Database, Sociedad Iberoamericana de Informacion Cientifica*



**Subscription Information**  
1988: Volume 14 (9 issues)  
ISSN: 0301-5629 (376)

# SCRIPTA METALLURGICA

Published on behalf of Acta Metallurgica, Inc

Editor: **J P HIRTH**, Metallurgical Engineering Department, Ohio State University, Columbus, OH 43210, USA

*Scripta Metallurgica*, the companion journal to *Acta Metallurgica*, is an international journal on the science of materials. It provides a medium for the rapid publication of papers which advance the understanding of the physical properties of materials: metals and alloys, ceramics, solid polymers and glasses. Included are those aspects of the science of materials concerning the relationship between the structure of solids and their properties (mechanical, electrical, magnetic, optical and chemical) and the thermodynamics, kinetics and mechanisms of processes occurring within solids.

## A Selection of Papers

Transmission electron microscopy of modulated structures, **J M GIBSON**.

An atom probe field ion microscope study of boron decorated boundaries in Ni<sub>3</sub>Al, **M K MILLER & J A HORTON**.

Microfracture of polycrystals and the Bishop and Hill stress states, **J G SEVILLANO**.

Crystals with fivefold symmetry, **D SHECHTMAN**.

Fracture maps with pressure as a variable, **M F ASHBY & J D EMBURY**.

New contributions to the effective surface energy of cleavage, **W W GERBERICH & E KURMAN**.

Near-threshold fatigue crack closure and growth in air and vacuum, **M N JAMES & J F KNOTT**.

High resolution electron microscopy of rapidly quenched Al-Sn alloy, **H ICHINOSE & Y ISHIDA**.

Do self-interstitials contribute to self-diffusion in metals? **U GOSELE**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS/CAS Selects, Cambridge Sci Abstracts, Engng Ind Monthly & Author Index, IBZ, Energy Res Abstracts, Energy Data Base, Metals Abstracts, INSPEC, World Alum Abstracts, INSPEC*



**Subscription Information**  
1988: Volume 22 (12 issues)

# SELECTIVE ELECTRODE REVIEWS

(Formerly *Ion-Selective Electrode Reviews*)

Applications, Theory and Development of Electrochemical Sensors & Biosensors

Editor-in-Chief: **J D R THOMAS**, Department of Applied Chemistry, University of Wales Institute of Science and Technology (UWIST), PO Box 13, Cardiff CF1 3XF, Wales, UK

*Selective Electrode Reviews* (formerly *Ion-Selective Electrode Reviews*) is generated by the enormous world-wide growth of interest in electrochemical sensors, and especially with the effort of making these selective by special designs of electrode membranes for direct sensing and of secondary membranes, based on enzyme and immuno systems, which by selective action yield products which can be sensed by a more general electrode. It is aimed to set progress in development and fundamentals alongside applications so as to emphasize interdisciplinary importance.

*Selective Electrode Reviews* is of interest to the electrochemist, biochemist, biologist, medical scientist, chemist, environmental scientist, agricultural scientist, toxicologist, forensic scientist, process engineer, metallurgist, materials scientist, geologist and oceanographic scientist whenever the sensing of ions is desirable or can be put to use.

The journal is addressed to all with interests where electrochemical sensing with selective electrodes and selective membranes and surfaces in the widest sense can promote advances in scientific knowledge or can facilitate monitoring, not only of primary species in samples, but also of samples upon which supplementary treatment stages can yield detectable ionic or molecular species.

## A Selection of Papers

Design and application of enzyme electrode probes, **M MASCINI & G PALLESCI** (Italy).

Selective gas and humidity sensors, **N YAMAZOE** (Japan).  
Selective electrodes in industrial practice,

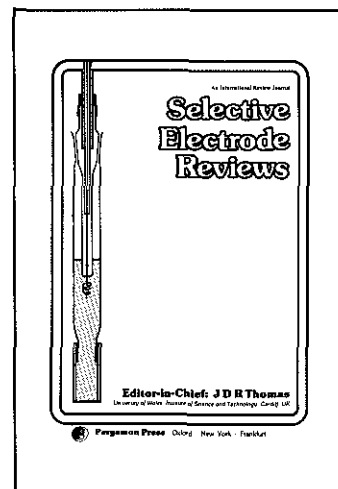
**I C HAMILTON** (Australia).

A classification of chemical sensors and electronic components, **P BERGVELD** (The Netherlands).

The bipolar pulse conductometric measurements with ISEs, **C R POWLEY & T A NIEMAN** (USA).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Engng Ind Monthly & Author Index*

Change of Title



**Subscription Information**  
1988: Volume 10 (2 issues)  
ISSN: 0804-3973 (540)

# VACUUM

## Technology, Applications and Ion Physics

Sponsored by the British Vacuum Council

Editor-in-Chief: **JOHN S COLLIGON**, *Department of Electronic and Electrical Engineering, University of Salford, Salford M5 4WT, UK*

This journal has established itself as the leading international forum for the publication of original papers dealing with all aspects of vacuum research and technology concerned with an environment in which the total gas pressure is below that of the atmosphere. Reflecting important new trends and current changes in the field, the journal focuses on present day requirements and the increasing application of a vacuum environment to resolve specific engineering and production problems. Particular attention is given to subject areas of major industrial importance including ion implantation, ion plating, plasma processing and thin film processes. Additional features include review articles, conference proceedings and reports, book reviews, Vacuum Diary, workshop notes and a new Vacuum News feature which reviews products currently available in a specific area.

**Major subject areas covered:** Pumping, Sealing, Monitoring, Kinetic Theory, Accelerator Systems, Fusion Devices, Thin Films, Surface Science, Instrumentation, Analysis of Materials, Chemical Engineering, Metallurgy, Drying, Ion Implantation, Electron Tubes, Discharges in Gases, Plasma-Surface Effects, Ion Plating.

### A Selection of Papers

Ion energy distributions in a special glow-discharge ion source, **Z WRONSKI** (Poland).

Parameter optimization for film homogenization during ion assisted deposition, **G CARTER** (UK) & **D G ARMOUR** (UK). Effects of backstreaming and real or virtual leaks on the vacuum contamination in a turned-off turbomolecular pumped UHV system, **N VENKATARAMANI** (India) *et al.*

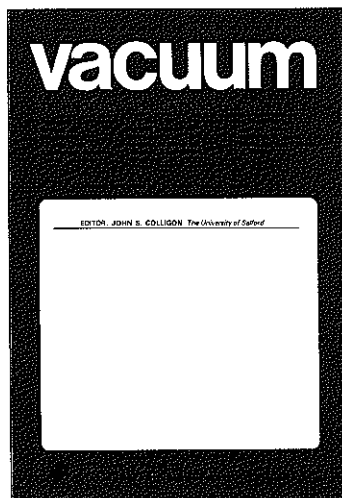
Thickness distribution of films fabricated by the molecular beam epitaxy technique, **K NANBU** (Japan) & **Y WATANABE** (Japan).

Dynamic interaction of floating substrates with an ion beam from a three grid microtech system operated without neutralizer, **D NIR** (Israel).

Interface structure between reactively ion plated TiO<sub>2</sub> films and PET substrate, **K SUZUKI** (Japan) *et al.*

New Patents and Software Survey sections are included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Computer Contents, Engng Ind Monthly & Author Index, INSPEC, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 38 (12 issues)  
ISSN: 0042-207X (357)

# VERTICA

The International Journal of Rotorcraft and Powered Lift Aircraft

Editor-in-Chief: **PERETZ FRIEDMANN**, *Mechanical, Aerospace and Nuclear Engineering Department, University of California, Los Angeles, CA 90024, USA*

This international journal provides a medium for the rapid publication of original research papers devoted to all aspects of the technology and usage of rotorcraft and powered lift aircraft. It is designed to encourage the exchange of ideas, opinions and technical knowledge between engineers, scientists and operators in the field and widen awareness of research and development trends in this rapidly expanding field throughout the world.

*Vertica* maintains an appropriate balance between the operational and technical aspects, both civil and military.

The journal includes original papers and technical notes as well as specially commissioned authoritative review articles. The journal also regularly features discussions on previous papers and is supplemented by letters to the editor on new developments. Reviews of important new books of interest are also included. The journal publishes an international news section which reports important world events and includes summaries of important meetings. A calendar of important forthcoming events and announcements of future meetings is included.

### A Selection of Papers

Elastomeric rod end bearings: a solution for improving reliability and maintainability, **F E STAPLES** (USA) *et al.*

Application of a lifting surface theory for a helicopter in forward flight, **H L RUNYAN** (USA) & **H TAI** (USA).

The development of advanced technology blades for tilt-rotor aircraft, **H R ALEXANDER** (USA) *et al.*

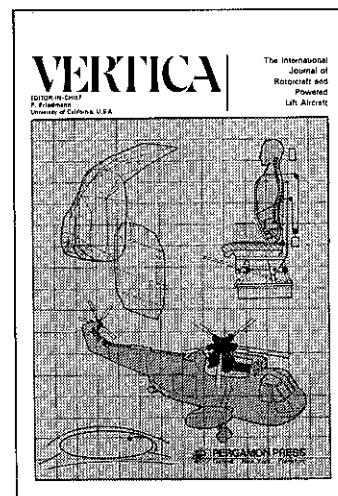
Unsteady sweep - a key to simulation of threedimensional rotor blade airloads, **U LEISS** (FRG).

Prediction of blade stresses due to gust loading, **G BIR** (USA) & **I CHOPRA** (USA).

DYSCO: an Executive Control System for dynamic analysis of synthesized structures, **P W HURST** (USA) & **A BERMAN** (USA).

Flight testing of an ASW helicopter, **C R GUY** (Australia) & **M J WILLIAMS** (Australia).

**Indexed/Abstracted in:** *Current Contents, Engng Ind Monthly & Author Index*



**Subscription Information**  
1988: Volume 12 (4 issues)  
ISSN: 0360-5450 (570)

# SOIL BIOLOGY & BIOCHEMISTRY

Executive Editor: **JOHN S WAID**, *Department of Microbiology, La Trobe University, Bundoora, Victoria 3083, Australia*

This journal is intended to act as a forum for research on soil organisms, their biochemical activities and their influence on the soil environment and plant growth. It publishes original work on quantitative, analytical and experimental aspects of such research. Soil biology and soil biochemistry cover many scientific disciplines but this single journal brings together the results and views of research workers working in a wide variety of research areas.

The scope of this journal is wide and embraces accounts of original research on the biology, ecology and biochemical activities of all forms of life that exist in the soil environment. Papers are welcomed that are concerned with the influence of soil organisms on plant growth. Some of the subjects which have proved to be prominent are the biological transformations of plant nutrients in soil, nitrogen fixation and denitrification, soil-borne phases of plant parasites, the ecological control of soil-borne pathogens, the influence of pesticides on soil organisms, the biochemistry of pesticide decomposition in soil, microbial aspects of soil pollution, the composition of soil populations, modelling of biological processes in soil systems, the biochemical activities of soil organisms, soil enzymes and the interactions of soil organisms with one another and with plants.

## A Selection of Papers

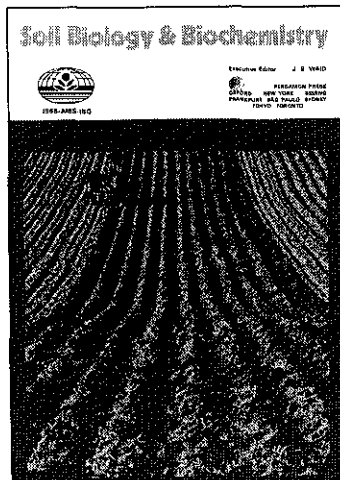
Nitrogen fixation ( $C_2H_2$  reduction) associated with roots of intact *Zea mays* in fritted clay at reduced oxygen tensions, **D B ALEXANDER** (USA) *et al.*

Contribution of associative  $N_2$ -fixation (acetylene reduction) in some grassland ecosystems in Zimbabwe, **B V MAASDORP** (Zimbabwe).

$^{14}C$  specific activity and  $^{15}N$  atom% excess in the soil microbial biomass as measured by the fumigation method and by the nucleic acid base method, **J CORTEZ** (France) & **G BILLES** (France).

Natural  $^{13}C$  abundance as a tracer for studies of soil organic matter dynamics, **J BALESSENT** (France) *et al.*

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), Biosis Database, Geo Abstracts, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 20 (6 issues)

# SOLAR & WIND TECHNOLOGY

An International Journal

Published for the International Solar Energy Society ® - Arab Section

Editor-in-Chief: **A A M SAYIGH**, *Energy Group, Department of Engineering, The University of Reading, Whiteknights, Reading RG6 2AY, UK*

*Solar & Wind Technology* comprehensively covers all forms of solar and wind energy, encompassing technical, environmental, social and economic issues with particular emphasis upon the practical applications of solar energy utilization.

The journal is a rapid publication medium, providing an international forum for workers involved in current research that is fundamentally concerned with, or of relevance to, the science and technology of solar and wind energy application.

## A Selection of Papers

Improved correlation of daily and hourly diffuse radiation with global radiation for Indian stations, **H P GARG** (India) & **S N GARG** (India).

Estimation of global solar radiation from sunshine hours, geographical and meteorological parameters, **Y TELAHUN** (Ethiopia).

Liquid and thin-film filters for hybrid solar energy conversion systems, **M A C CHENDO** (USA) *et al.*

Photovoltaic hydrogen production for remote communities in northern latitudes, **A HAMMACHE** (Canada) & **E BILGEN** (Canada).

Analysis of a photovoltaic static concentrator prototype, **G ALMONACID** (Spain) *et al.*

Vacuum deposited  $KPbI_2$  films for use in photothermal conversion, **A M SALAU** (Nigeria) *et al.*

Development of a CPC with low thermal losses, **A FASULO** (Argentina) *et al.*

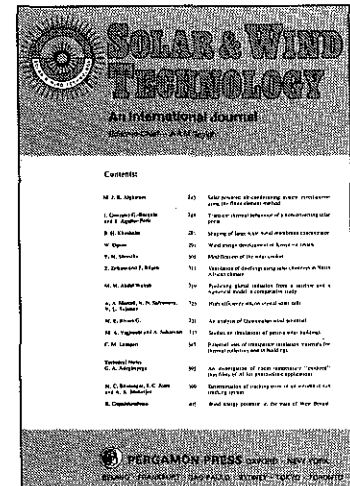
The iso-radiation map for the Arab region, **A A M SAYIGH** (Kuwait).

Variation of radiation and sunshine correlations, **A SOLER** (Spain).

Estimation of the monthly average hourly global, diffuse and direct radiation, **A SOLER** (Spain).

Optimization of the geometry of a seasonally adjusted solar concentrator by the discrete maximum principle, **S C MULLICK** (India) *et al.*

Predicting diffuse radiation where only data on sunshine duration is available, **J G M MASSAQUOI** (Italy).



**Subscription Information**  
1988: Volume 5 (6 issues)  
ISSN: 0741-022X (225)



# WATER QUALITY INTERNATIONAL

The News Magazine of the International Association on Water Pollution Research and Control

Editor: **WENDY HOROBIN**, IAWPRC, 1 Queen Anne's Gate, London SW1H 9BT, UK

*Water Quality International*, the new journal of the International Association on Water Pollution Research and Control (IAWPRC) provides a digest of the scientific and technical information produced by IAWPRC's many activities, including its conferences and expert groups.

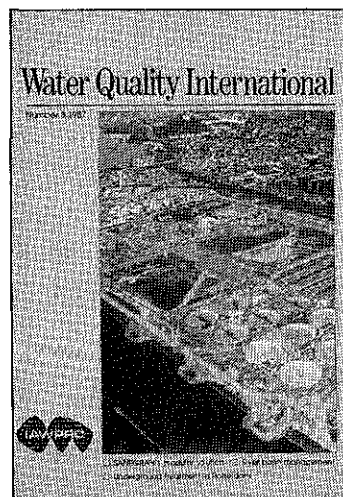
In addition, topics of current interest on water pollution control internationally are included.

All of this is condensed into a fast, easy-to-read style, conveying the most important new ideas, with reference to the sources, quickly and easily to busy executives, researchers and water pollution control professionals of all disciplines.

*Water Quality International* is not an abstracts journal. The news and feature articles on key water pollution control issues worldwide are written by experienced technical journalists.

#### Among the Topics Covered are:

- Nitrogen pollution of water
- Groundwater pollution from leachates
- Industrial wastewater treatment
- Waste stabilization ponds
- Microcomputer software for water pollution control
- Large wastewater treatment plants
- Instrumentation
- Control and automation
- Marine and estuarine pollution
- Tastes and odours



**Subscription Information**  
1988; Volume 2 (4 issues)  
ISSN: 0892-211X (827)

# WATER RESEARCH

The Journal of the International Association on Water Pollution Research and Control

Editor: **K J IVES**, Executive Editor, IAWPRC, 1 Queen Anne's Gate, London SW1H 9BT, UK

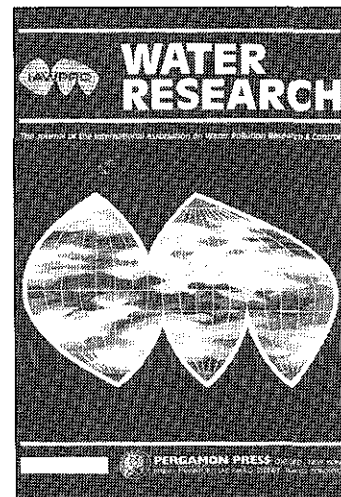
This journal publishes refereed, original research papers covering all aspects of the pollution of marine and fresh water and the management of water quality as well as water resources. It will be seen from the work published in the journal that the papers include such subjects as: the science and technology of water and wastewater treatment; studies on the effects of discharges in inland, tidal or coastal waters; the scientific aspects of the collection and treatment of municipal and industrial wastewaters; surface and ground water; non-point sources of pollution; water quality standards and the assessment of water quality by chemical, physical and biological methods; improvements in analytical and monitoring techniques; the limnology of lakes, impoundments and rivers; application of mathematical techniques in water pollution control; kinetic studies; the determination, effects and control of toxicants; the treatment and disposal of sludges; the problems of control of pollution in developing countries and the treatment of municipal and industrial wastewater in such areas. Reference to the journal will show that this list is by no means exhaustive.

#### A Selection of Papers

Modelling of BOD-DO dynamics in an ice-covered river in northern China, **H RANJIE** (FRG) & **L HUIMIN** (China). Correlation of some organic pollution factors in water systems in northern Greece, **A VOULGARPOULOS** (Greece) *et al.* Stroboscopic determination of settling velocity, size and porosity of activated sludge flocs, **DA-HONG LI** (Canada) & **J J GANCZARCZYK** (Canada).

The effect of beaver ponds on the nonpoint source water quality of a stream in southwestern Wyoming, **T J MARET** (USA) *et al.* A safety factor for  $LC_{50}$  values allowing for differences in sensitivity among species, **S A L M KOOLJMAN** (The Netherlands).

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), Excerpta Medica, EIC Intelligence, BIOSIS Database, Aqualine Abstracts, Geo Abs, PASCAL-CNRS Database, INSPEC, Petroleum Abstracts*



**Subscription Information**  
1988: Volume 22 (12 issues)  
ISSN: 0043-1354 (309)  
Combined subscription is available with *Water Science and Technology*.

# SOLID-STATE ELECTRONICS

An International Journal

Editor-in-Chief: **W CRAWFORD DUNLAP**, 126 Prince Street, West Newton, MA 02165, USA

*Solid-State Electronics* brings together in one publication outstanding papers reporting original work in the following two areas: applications of solid-state physics in such fields as transistor technology, including theory and design, crystal growth, measurement and evaluation, preparation of junctions and measurement techniques; and, applications of computer and numerical methods to the modelling and simulation of solid-state devices, physics and design of ultra-small (submicron) microelectronic devices (VLSI), including methods of processing, measurement and evaluation.

Also of interest are applications of intermetallic, binary and ternary semiconductors, the design and performance of power semiconductor devices, solar cells, photoconductors, thermoelectric and ferroelectric devices, galvanomagnetic devices, and electroluminescent devices, including semiconductor lasers. Of particular interest are solid-state optical devices for storage and transfer of information. Contributions take the form of short camera-ready Communications, Research Papers, Notes and Letters to the Editor.

It is expected that, because of its international scope and because it emphasizes the association of theory and practice, *Solid-State Electronics* will promote further progress in the ever-widening borderland between solid-state physics and circuit engineering.

## A Selection of Papers

A simple self-aligned GaAs MESFET using polyimide I, **ABDEL-MOTALEB** (Canada) & **L YOUNG** (Canada).  
Boundary value problems in Boltzmann modelling of hot electron transport, **W COX** (UK).

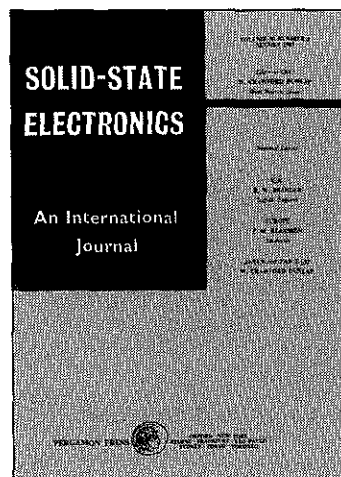
Application of two-dimensional process/device simulation for evaluating MOSFET fabrication processes, **S TAZAWA** (Japan) *et al.*

A simple interfacial-layer model for the non-ideal *I-V* and *C-V* characteristics of the Schottky-barrier diode, **H-H TSENG** (China) & **C-Y WU** (China).

Suppression of copper-related level in LEC pGaAs by platinum diffusion, **Z Q FANG** (USA) *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents*, *Chemical Abstracts*, *Engng Ind Monthly* & *Author Index*, *PASCAL-CNRS Database*, *INSPEC*



**Subscription Information**  
1988: Volume 31 (12 issues)

# SOLUBILITY DATA SERIES

The IUPAC series of critically evaluated solubility data covering all physical and biological systems

Editor-in-Chief: **A S KERTES**, Hebrew University of Jerusalem, Jerusalem, Israel

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## Recently Published Volumes

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20: Halogenated Benzenes, Toluenes and Phenols with Water

21: Ammonia, Amines, Phosphine, Arsine, Stibine, Silane, Germane & Stannane in Organic Solvents

22: Scandium, Yttrium, Lanthanum and Lanthanide Halides in Nonaqueous Solvents

23: Copper, Silver, Gold & Zinc, Cadmium, Mercury Oxides and Hydroxides

24: Propane, Butane & 2-Methylpropane

25: Metals in Mercury

26: Sulfites, Selenites & Tellurites

27/28: Methane

29: Mercury in Liquids, Compressed Gases, Molten Salts and Other Elements

30: Alkali Metal Halates, Ammonium Iodate and Iodic Acid.

## Forthcoming Volumes

Alkali Metal Phosphates

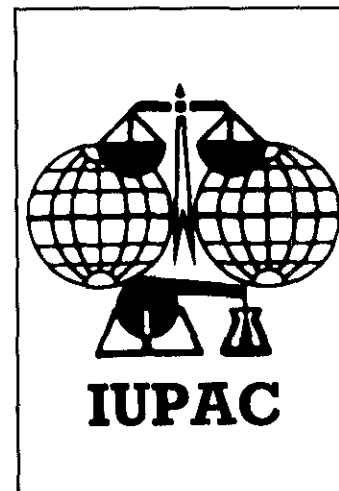
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Hydrogen Sulfide and Hydrogen Selenide

Hydrocarbons (C<sup>5</sup>-C<sup>7</sup>) with Water and Seawater

Hydrocarbons (C<sup>8</sup>-C<sup>36</sup>) with Water and Seawater

Sulfonamides.



**Subscription Information**  
1988: Volumes 33-38  
ISSN: 0191-5622 (1988)

# WELDING IN THE WORLD / LE SOUDAGE DANS LE MONDE

Journal of the International Institute of Welding  
Revue de l'Institut International de la Soudure

Editors/Rédacteurs en chef: **P D BOYD**, *The International Institute of Welding, 11/12 Pall Mall, London SW1Y 5LU, UK* and **M BRAMAT**, *Secrétaire Scientifique et Technique de l'IIS, 32 Boulevard de la Chapelle, 75880 Paris Cedex 18e, France*

The journal publishes technical reports on all aspects of welding technology. Topics covered by the journal include authoritative reports on:

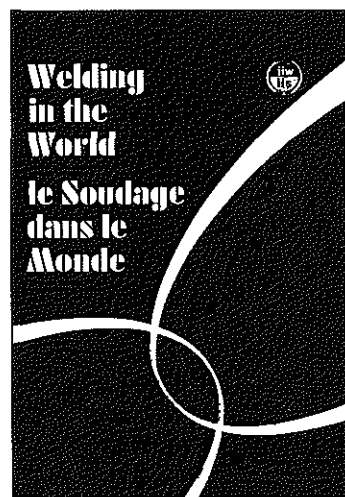
- Processes, welding equipment and consumables
- Joining, cutting and surfacing by thermal processes
- Arc and resistance welding
- Flux and gas shielded electrical welding processes
- Inspection and behaviour of materials and welded assemblies
- Testing, measurement and control of welds.

Beginning with the 1987 volume, *Welding in the World* publishes one additional special number devoted to the publication of extended abstracts of around 200 documents of IIW Working Units and other important commissioned reports and surveys. Topics covered include: welding processes, welding metallurgy, testing and inspection of welds, particular welding applications, health and safety, terminology and welding instruction. This supplement, which is sent automatically to current subscribers, forms a very useful information tool in maintaining awareness of IIW activities and important R & D programmes around the world.

## A Selection of Papers

Typical fracture types obtained when testing spot welds in rephosphorized steel, **COMMISSION III OF THE IIW**.  
TIG process with dual shield: intermediate process between TIG and plasma arc welding, **J F SCHULTZ** (France).  
Development of programmable process controllers for resistance welding, **P JOSSE** (France).  
Light emission in thermal cutting, **C B ANDERSEN** (Denmark).

**Indexed/Abstracted in:** *Chemical Abstracts*



**Subscription Information**  
1988: Volume 26 (7 issues)  
ISSN: 0043-2288 (307)

# WOMEN'S STUDIES INTERNATIONAL FORUM

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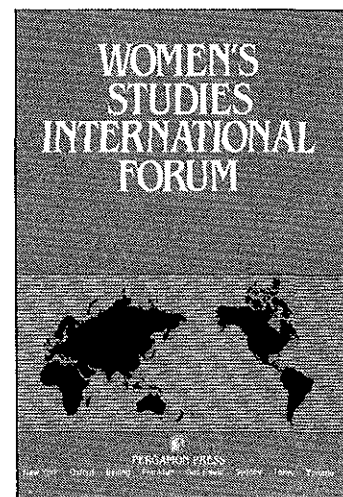
- a collective approach to editorial content
- acceptance and valuation of research from both inside and outside formal educational institutions and from any discipline
- active pursuit of contributions from scholars around the globe
- promotion of an unrivalled international network among women's studies practitioners.

*WSIF* seeks to critique and reconceptualize existing knowledge, and to examine and re-evaluate the manner in which knowledge is produced and distributed, and the implications this has for women's position.

## A Selection of Papers

Gender and colonialism: women's organizations under the Raj, **J LIDDLE & R JOSHI**.  
Liberty, equality, sorority: contradiction and integrity in feminist thought and practice, **E A BARTLETT**.  
Magdalens and moral imbeciles: women's homes in nineteenth-century New Zealand, **M TENNANT**.  
Operating by consensus: the collective approach to women's studies, **S G RADNER**.  
Peace with the earth: women and the environmental movement in Sweden, **A PETERSON & C MERCHANT**.  
The equality principle and the sexual division of labour, **M THORNTON**.  
The Warnock Report: the politics of reproductive toxicology, **P SPALLONE**.  
We are the ones that we have been waiting for: political content in Alice Walker's novels, **B T CHRISTIAN**.

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Feminist Periodicals, Sociological Abstracts, Annotated Guide to Women's Periodicals in the US/Canada, Psychological Abstracts, PsycINFO, Studies on Women Abstracts, America: History and Life, Historical Abstracts, Alternative Press Index*



**Subscription Information**  
1988: Volume 11 (6 issues)  
ISSN: 0277-5395 (361)

# SPECTROCHIMICA ACTA

## Part A: Molecular Spectroscopy

Editors: **SIDNEY F A KETTLE**, *School of Chemical Sciences, University of East Anglia, Norwich NR4 7TJ, UK* and **JEFFREY I STEINFELD**, *Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA 02139, USA*

This international journal is intended for the rapid publication of original work dealing with molecular spectroscopy, and its application in chemical problems. Subject areas include infrared, visible, ultraviolet, Raman, microwave, and photoelectron spectroscopy, nuclear magnetic and electric spin resonance, optical rotatory dispersion and magnetic circular dichroism, and neutron and light scattering. In addition to fundamental papers on molecular structure and interactions, papers dealing with applications in areas such as qualitative and quantitative analysis, surface spectroscopy, non-linear optics, laser photochemistry, aeronomy and extra-terrestrial spectroscopy, instrumentation, and biochemistry are also published.

### A Selection of Papers

Vibrational analysis of alkyl xanthates, **N B COLTHUP** (USA) & **L PORTER POWELL** (USA).

The assignment of fundamental vibrations of BEDT-TTF and BEDT-TTF- $d_8$ , **M E KOZLOV** (USSR) *et al.*

Symmetry assignments of vibrations in 9,10-anthraquinone aligned in stretched polyethylene,

**J SPANGET-LARSEN** (Denmark) *et al.*

Vibrational spectrum of  $KM^{11}P_3O_9$  tricyclophosphates with the benitoite structure, **P TARTE** (Belgium) *et al.*

Infrared intensity parameters of the diacetylene and acidity of acetylenic hydrogens, **M N RAMOS** (Brazil) &

**M M C FERREIRA** (Brazil).

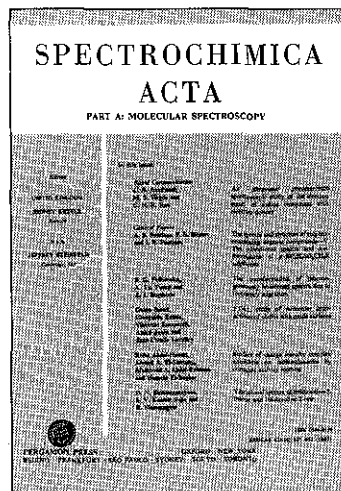
Spectral (u.v.-vis, i.r. and MS), electrochemical and metallochromic properties of 2-hydroxy-benzoylhydrazones of acetylpyridines, **M GARCIA-VARGAS** (Spain) *et al.*

Surface enhanced Raman spectra (SERS) of pyridine and dye-1555 adsorbed on silver bromide colloids,

**WANG JIAN** (China) *et al.*

New Patents and Software Survey sections are included in this journal

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS Database, INSPEC*



### Subscription Information

1988: Volume 44A

(12 issues)

ISSN: 0584-8547 (213)

# SPECTROCHIMICA ACTA

## Part B: Atomic Spectroscopy

Editor-in-Chief: **P W J M BOUMANS**, *Philips Research Laboratories, 5600 JA Eindhoven, The Netherlands*

Editors: **WALTER SLAVIN**, *Perkin-Elmer Corporation, USA* and **H OECHSNER**, *University of Kaiserslautern, FRG*

Assistant Editors: **J A C BROEKAERT**, *Institute of Spectrochemistry and Applied Spectroscopy (ISAS), FRG* and **Z ZHANXIA**, *Sun Yatsen University, Guangzhou, China*

*Spectrochimica Acta, Part B* covers topics from rapidly expanding areas in atomic spectroscopy, mass spectroscopy for inorganic analysis, analytical laser spectroscopy and surface, interface, thin film and micro analysis. The articles deal with theory and fundamentals, methodology development, instrumentation, and applications.

Recent years have seen the publication of an ever increasing number and variety of articles contributed by the leading authors in spectroscopy who have understood the impact of *Spectrochimica Acta, Part B*, on the development of atomic spectroscopy and related fields. Therefore the journal is an indispensable source of information for all analytical spectroscopists.

Authors can feel assured that the submittance of their manuscripts is followed by fast, thorough and efficient refereeing, substantial editorial advice and rapid publication of the revised text in the journal with the longest tradition in spectroscopy and the unrivalled standard.

### A Selection of Papers

X-ray spectral analysis - present status and trends,

**R KLOCKENKÄMPER** (FRG).

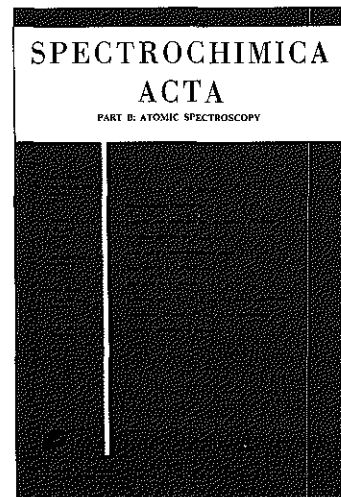
Study of the effects of concomitant elements in inductively coupled plasma mass spectrometry,

**D BEAUCHEMIN** (Canada) *et al.*

Determination of arsenic and antimony in iron and steels by inductively coupled plasma-atomic emission spectrometry using a graphite cup direct insertion device, **M UMEMOTO** (Japan) & **M KUBOTA** (Japan).

A New Patents section is included in this journal

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, BIOSIS Database, PASCAL-CNRS Database, INSPEC*



### Subscription Information

1988: Volume 43B

(12 issues)

ISSN: 0584-8547 (214)

# WORLD PATENT INFORMATION

The International Journal for Patent Documentation, Classification & Statistics  
A joint periodical of the Commission of the European Communities and the World Intellectual Property Organization.

Editor-in-Chief: **V S DODD**, Room 832, State House, 66-71 High Holborn, London WC1R 4TP, UK

Consultant Editor: **MICHAEL W HILL**, Associate Director, Science Reference and Information Service

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## A Selection of Papers

USPTO's automated trademark search system,

**J H BRYANT** (USA).

Foreign patenting by Canadians, **D J FRENCH** (Canada).

Patent analysis using online databases - I. Technological trend analysis, **R M WILSON** (The Netherlands).

API patent abstracting and indexing - cooperative efforts in historical perspective, **E H BRENNER** (USA).

Latest developments in the field of handling image information - a short report on the AIIM-Show, **A WITTMANN** (FRG).

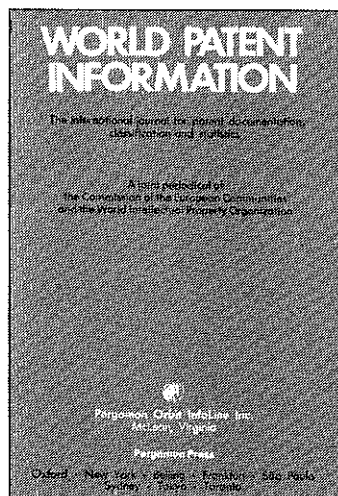
Video at the EPO, **W LEPEE** (The Netherlands).

Patents resulting from NSF's engineering program, **R S CUTLER** (USA).

Online Patent Information, **S M KABACK**.

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Chemical Abstracts*



## Subscription Information

1988: Volume 10 (4 issues)

ISSN: 0172-2192 (654)

# WORLD SURFACE COATINGS ABSTRACTS

Produced by the Paint Research Association

Editorial Board: **N R MORGAN**, **L A O'NEILL**, **H JOTISCHKY**, **B M O'NEILL** and **S C HAWORTH**, Paint Research Association, Waldegrave Road, Teddington, Middlesex TW11 8LD, UK

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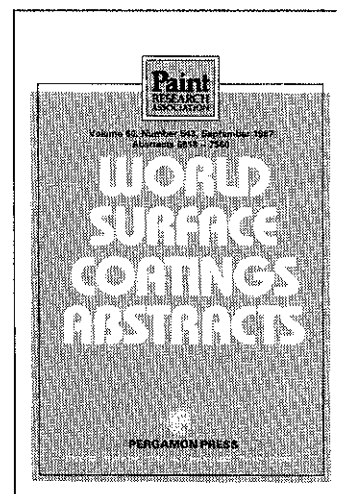
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## Subscription Information

1988: Volume 61 (12 issues)

ISSN: 0043-9088 (730)

*World Surface Coatings*

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## SYSTEM

An International Journal of Educational Technology and Applied Linguistics

Editor: **NORMAN F DAVIES**, *Department of Language and Literature, University of Linköping, Sweden*

This international journal is devoted to the applications of educational technology and applied linguistics to problems of foreign language teaching and learning. Attention is paid to all languages and to problems associated with the study and teaching of English as a second or foreign language. The journal serves as a vehicle of expression for colleagues in developing countries.

*System* prefers its contributors to provide articles with both a sound theoretical base and a visible practical application which can be generalized. The review section may take up works of a more theoretical nature to broaden the background.

### A Selection of Papers

The computer as electronic blackboard, **M FRIEL** (UK).  
Involuntary rehearsal of second languages in beginning and advanced performers, **P CHAPMAN PARR** (USA) & **S D KRASHEN** (USA).

Understanding research, **E S FREEDMAN** (UK).  
Method-design-procedure versus method-technique, **J E STRAIN** (USA).

Writing short stories for the BBC World Service, **D CROOKALL** (France).

Patterns in poetry: a method of attack, **J M M HUSSEIN** (Iraq).

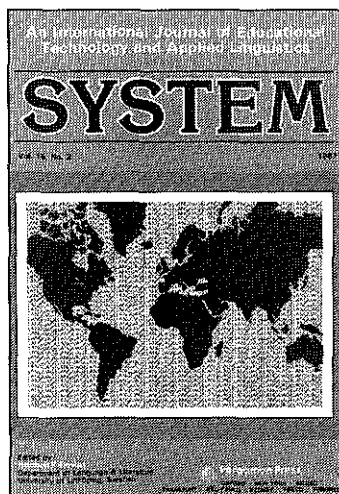
The future of English Language Teaching, **C KENNEDY** (UK).

Incorporating learner training in the classroom, **A L WENDEN** (USA).

On the supervision and evaluation of instruction, **T DELAMERE** (USA).

Coming to terms with evaluation, **K MCGINLEY** (Zimbabwe).

**Indexed/Abstracted in:** *Current Contents, Social Abstracts*



**Subscription Information**  
1988: Volume 16 (3 issues)  
ISSN: 0346-251X (335)

## SYSTEMS RESEARCH

The Official Journal of the International Federation for Systems Research

Editor-in-Chief: **JOHN N WARFIELD**, *Institute for Advanced Study in the Integrative Sciences, George Mason University, Thompson Hall, 4400 University Drive, Fairfax, VA 22030, USAI*

The International Federation for Systems Research stimulates inquiry and research into systems and their interactions through its journal *Systems Research*, a multidisciplinary focus for the exchange of new ideas and knowledge relating to the development, assessment and management of systems programs and activities.

The journal concentrates on the problems of change in societies or organizations, for example, the implementation of rules and regulations to increase the quality of life and work and the introduction of new, emancipatory scientific ideas in daily life. Readers include academics and professionals intent on overcoming discrepancies in human constructions and organizations.

### A Selection of Papers

Churchman's conversations, **C W CHURCHMAN** (USA).  
System stability principles, **K E F WATT** (USA) & **P P CRAIG** (USA).

Transformation and regeneration in social systems: a dissipative structure perspective, **C SMITH** (USA).

Towards implementing the Menon report: a systems approach using ISM, **M N B AYIKU** (USA).

Adult cognitive and epistemological development in systems education, **M SALNER** (USA).

Succession as an alternative to the concept of product life cycle, **M J SIRGY** (USA) & **R H GILES Jr** (USA).

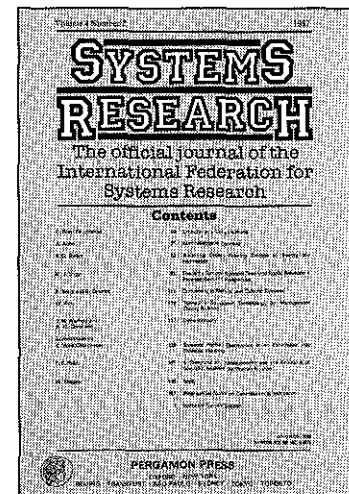
Bifurcations and structural stability in the dynamical systems modeling process, **J ARACIL** (Spain).

Accounting information systems in the framework of living systems theory and research, **G A SWANSON** (USA) & **J G MILLER** (USA).

Third W. Ross Ashby memorial lecture 1986. Reconstructibility analysis: an offspring of Ashby's constraint analysis  
**G J KLIR** (USA).

A Software Survey section is included in this journal

**Indexed/Abstracted in:** *Current Contents/Social & Behavioral Sciences, Social Science Citation Index*



**Subscription Information**  
1988: Volume 5 (4 issues)  
ISSN: 0731-7239 (692)



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# TECHNOLOGY IN SOCIETY

An International Journal

Editors-in-Chief: **GEORGE BUGLIARELLO** and  
**A GEORGE SCHILLINGER**, *Polytechnic University,*  
333 Jay Street, Brooklyn, NY 11201, USA

*Technology in Society* is an international journal devoted to a range of interdisciplinary fields most simply identified by the terms: technology assessment, science, technology and society; management of technology; technology and policy; the economics of technology; technology transfer, appropriate technology and economic development; ethical and value implications of science and technology; science and public policy; and technology forecasting. A focus common to all these fields is the role of technology in society - its economics, political and cultural dynamics; the social forces that shape technological decisions and the choices that are open to society with respect to the uses of technology.

## A Selection of Papers

The international protection of technology: a challenge for international law making, **N deB KATZENBACH**.

Introducing research results into practice: the Bulgarian experience, **G SCHWITZER**.

The politics of contraception: the view from Tokyo, **C DJERASSI**.

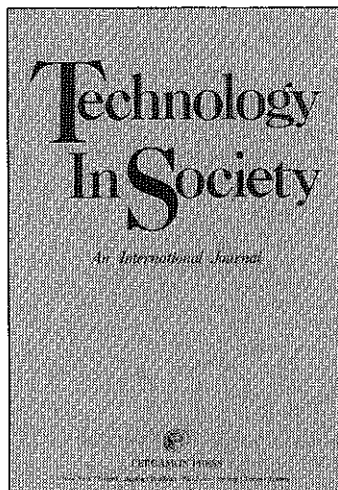
Penetrating the fog of technology's social dimensions, **R SANDERS**.

The possibility of doom, **M H KRIEGER**.

The study of living systems: a macro-engineering perspective, **J GREIR MILLER**.

Macro-engineering: a solution to drought?, **E B KONECCI**.

**Indexed/Abstracted in:** *Current Contents, Sociological Abstr., Engineering Index Monthly and Author Ind, Current Literature on Science of Science*



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The invention of radical reactions-XV. Some mechanistic aspects of the decarboxylative rearrangement of thiohydroxamic esters, **D H R BARTON** (USA) *et al.*

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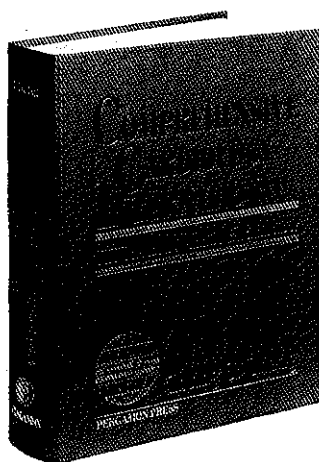
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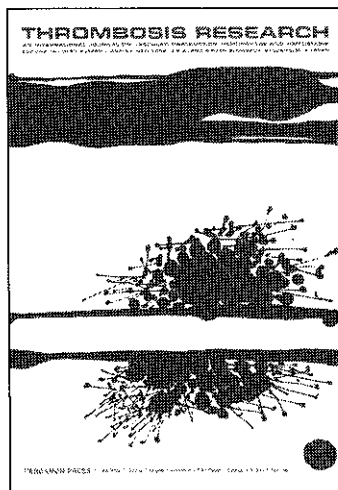
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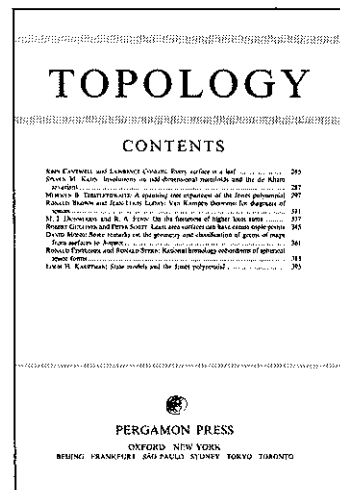
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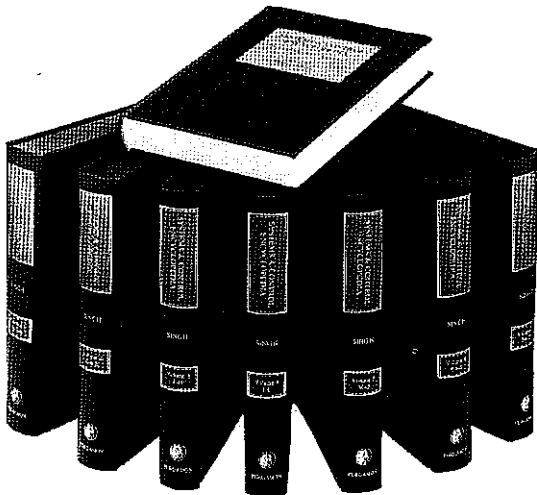
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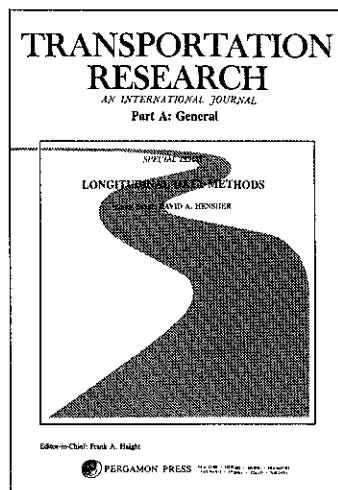
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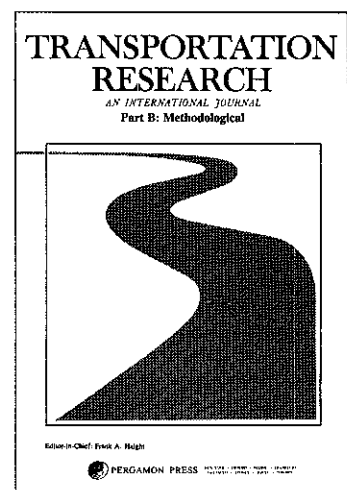
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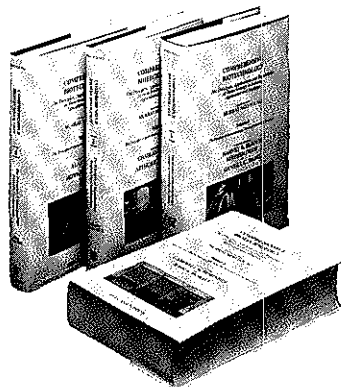
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### FIRST SUPPLEMENT: ANIMAL BIOTECHNOLOGY

**Editors: L A BABIUK**, *Veterinary Infectious Disease Organization, Saskatoon, Saskatchewan, Canada* & **J P PHILLIPS**, *University of Guelph, Ontario, Canada*  
0 08 034730 4 Hardcover 1988

### SECOND SUPPLEMENT: PLANT BIOTECHNOLOGY

**Editors: M W FOWLER & G S WARREN**, *University of Sheffield, UK*  
0 08 034731 2 Hardcover 1989

### THIRD SUPPLEMENT: INDUSTRIAL BIOTECHNOLOGY

**Editors: J H LITCHFIELD & B R ALLEN**, *Battelle Memorial Institute, Columbus, Ohio, USA*  
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New for 1989

## URBAN ATMOSPHERE

### Physical and Biometeorological Processes

Editor: **ROBERT D. BORNSTEIN**, San Jose State University, School of Science, Department of Meteorology, One Washington Square, San Jose, California 95192-0104, USA

Pergamon Press and the Editors of *Atmospheric Environment* announce that beginning in 1989 *Atmospheric Environment* will contain papers dealing with the topic of urban atmosphere. These papers will comprise three issues known as *Urban Atmosphere* (Physical and Biometeorological Processes). Articles will include issues on field studies, data analysis, models and reviews of the effects of urbanization on the atmosphere. Specific urban topics that may be covered include: climate; energy and moisture balances; meteorology; hydrology; health; building science; city and regional planning and air pollution. These issues will be included as part of a subscription to *Atmospheric Environment* or may be ordered separately. (See also page 20).

## USSR COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS

A cover-to-cover translation of the Russian journal *Zhurnal Vychislitel'noi Matematiki i Matematicheskoi Fiziki*

Scientific Translation Editor: **R C GLASS**, *The City University, Northampton Square, London EC1V 0HB, UK*

*Zhurnal Vychislitel'noi Matematiki i Matematicheskoi Fiziki* was founded in 1961 and is concerned with computational mathematics and various branches of mathematical physics. The chief feature of the journal is that it publishes papers on mathematical problems arising in all fields of science, e.g. physics, mechanics, computer theory, as well as papers of a purely mathematical nature.

### A Selection of Papers

Solution of the problem of the energetically optimal control of the motion of a train by the maximum principle,

**I A ASNIS (USSR) et al.**

A special class of problems of geometric optimization,

**M F KASPSHITSKAYA (USSR) et al.**

The use of duality to increase the effectiveness of the branch and bound method when solving the knapsack problem,

**A O ALEKSEYEV (USSR) et al.**

The synthesis of laminar media with specified amplitude and phase properties, **A V TIKHONRAVOV (USSR)**.

An initial-boundary value problem for the gravitational-gyroscopic wave equation, **S A GABOV (USSR) & YU D PLETNER (USSR)**.

An algorithm for the numerical solution of the problem of the surface vaporization of a substance by laser radiation,

**V I MAZHUKIN (USSR) & G A PESTRYAKOVA (USSR)**.

**Indexed/Abstracted in:** *Cambridge Sci Abstracts*

### Subscription Information

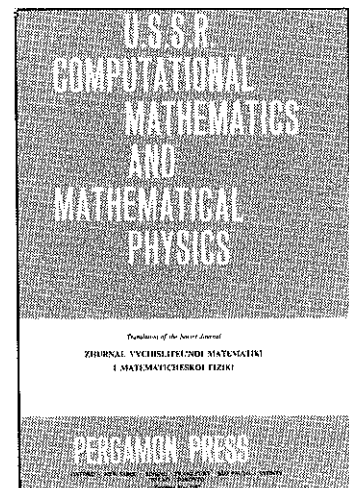
1989: Volume (3 issues)

ISSN: 0142-9608

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1988: Volume 27 (6 issues)

ISSN: 0041-5553 (283)





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A multichannel microspectrophotometer for visual pigment  
investigations, **E A WIDDER** *et al.*

Isolation and characterization of retinal-binding protein from the  
squid retina, **K OZAKI** *et al.*

Displaced amacrine cells in the ganglion cell layer of the hamster  
retina, **R LINDEN** & **C E L ESBERARD**.

Macular pigment and reduced foveal short-wavelength sensitivity  
in retinitis pigmentosa, **K R ALEXANDER** *et al.*

### Part B: Psychophysics, Eye Movements and Physiological Optics

Chromatic suppression of cone inputs to the luminance flicker  
mechanism, **C F STRONMEYER III** *et al.*

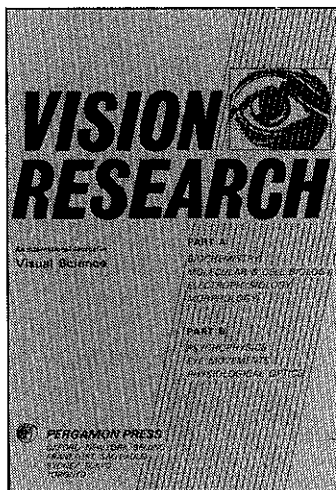
Developmental aspects of experimental myopia in chicks:  
susceptibility, recovery and relation to emmetropization,  
**J WALLMAN** & **J I ADAMS**.

Psychophysics of reading - V. The role of contrast in normal  
vision, **G E LEGGE** *et al.*

Color-opponent characteristics revealed in temporal integration  
time, **M MITSUBOSHI** *et al.*

A Software Survey section is included in this journal.

**Indexed/Abstracted in:** *Current Contents/Life Sciences,  
Excerpta Medica, Index Medicus, MEDLINE, MEDLARS,  
INSPEC, Behavioral Medicine Abstr, Current Awareness in  
Biological Sciences (CABS), Psychol Abs, PsycINFO, BIOSIS  
Database, PASCAL-CNRS Database*



**Subscription Information**  
1988: Volume 28 (12 issues)  
ISSN: 0042-6989 (263)

# VISTAS IN ASTRONOMY

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Editors: **PETER BEER**, *Langham Villa, High Street, Newport,  
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Star names - origins and misconceptions, **G HEUTER** (UK).

Polarimetry of cool giants and supergiants,

**H E SCHWARZ** (UK).

New ideas in cosmology and new solutions in general relativity,

**P S WESSON** (Canada).

A large-scale atlas of the Milky Way dark clouds,

**J V FEITZINGER** (FRG) & **J A STÖWE** (FRG).

An analysis of the light changes of eclipsing variables in the  
frequency-domain: practical aspects, **Z KOPAL** (UK).

The disks of spiral galaxies, **D J ADAMS** (UK).

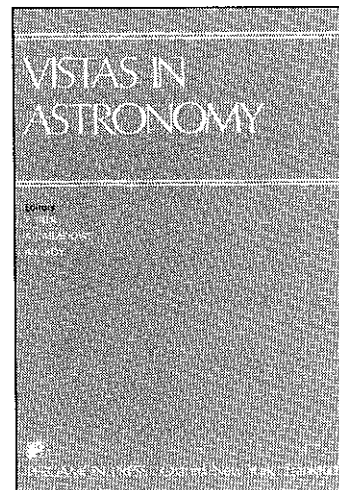
RR Lyrae stars as distance indicators, **R F JAMESON** (UK).

Statistical methods of stellar polarimetry, **D CLARKE** (UK) &

**B G STEWART** (UK).

The origin of comets, **M E BAILEY** (UK) *et al.*

**Indexed/Abstracted in:** *Chemical Abstracts, INSPEC*



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Editorial enquiries to: *IAWPRC, 1 Queen Anne's Gate, London SW1H 9BT, UK*

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## A Selection of Papers

Re-use of municipal wastewater in arid countries, **U NEIS** (FRG) *et al.*

Impact of pulp and paper mill wastewater on crop and soil, **A S JUWARKAR** (India) & **P V R SUBRAHMANYAM** (India).

An assessment of a low-cost wastewater disposal system after twenty-five years of operation, **B L REIDY** (Australia) & **G W SAMSON** (Australia).

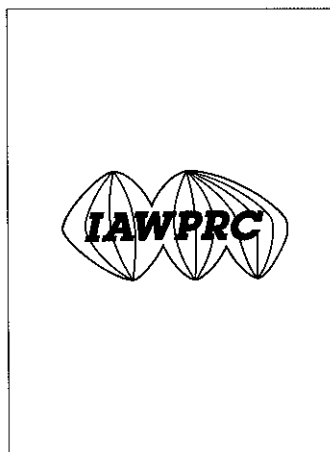
A lake eutrophication management model, **L SOMLYODY** (Hungary).

Optimization of regional water quality monitoring strategies, **J PINTER** (Hungary) & **L SOMLYODY** (Hungary).

A comparison of simple methods for estimating the mass flow of fluoride discharged into rivers, **W VAN CRAENENBROECK** (Belgium) & **J MARIVOET** (Belgium).

A New Patents section is included in this journal.

**Indexed/Abstracted in:** *Current Contents, Chemical Abstracts, Excerpta Medica, Current Awareness in Biological Sciences (CABS), BIOSIS Database, Eng Ind Monthly & Author Index*



## Subscription Information

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## A Selection of IWSA Conference Papers Published

Nitrate removal from groundwater by autotrophic microorganisms, **H GROS** (Switzerland) *et al.*

GAC mathematical modelling as a tool for the practitioner, **J L BERSILLON** (France) *et al.*

Utilisation combinée de l'ozone et du charbon actif biologique dans une grande unite de traitements, **G BABLON** (France) *et al.*

Mathematical modelling of the flow in the sludge blanket, **I TESARIK** (Czechoslovakia) *et al.*

Automatic coagulation control- evaluation of strategies and techniques, **P J JACKSON** (UK) & **E J TOMLINSON** (UK).

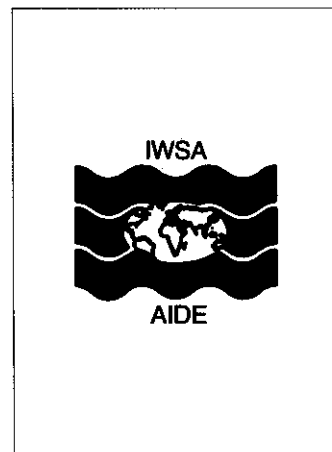
Air saturators for use in dissolved air flotation processes, **T J CASEY** (Eire) & **I E NAOM** (Eire).

The development of an automated procedure for monitoring the effectiveness of ozone, **E BRODARD** (France) *et al.*

Criteria for the control of flocculation and filtration processes in the water treatment of reservoir water,

**H BERNHARDT** (FRG) *et al.*

**Indexed/Abstracted in:** *Chemical Abstracts, Current Awareness in Biological Sciences (CABS), Excerpta Medica*



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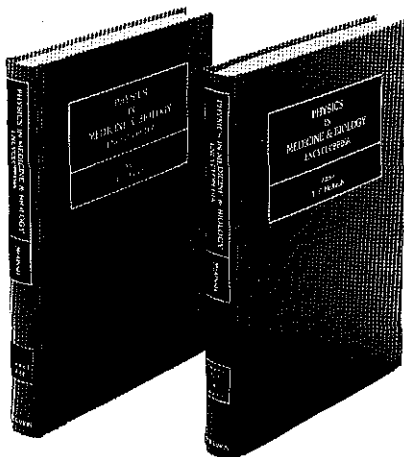
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## A Selection of Papers

An idea in good currency and how it grew: the informal sector, **L PEATTIE**.

Street trading in Transkei - a struggle against poverty, persecution and prosecution, **N J NATTRASS**.

Probing managerial behavior: image and reality in Southern Africa, **J D MONTGOMERY**.

Food policy and class transformation in revolutionary Nicaragua, 1979-1986, **M ZALKIN**.

The political realities of African management, **D K LEONARD**.

**Indexed/Abstracted in:** *ABC Pol Sci, Current Contents/Social & Behavioral Sciences, Geo Abstr, Int Devel Abstr, Management Contents, Legal Contents, Rural Devel Abs, Socio Abstr,*

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**LARRY E SMITH**, *Institute of Culture and Communication, East-West Center, 1777 East-West Rd, Honolulu, HI 96849, USA*

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The power and politics of English, **B B KACHRU** (USA).

English in the linguistic transformation of Hawaii: literacy, languages and discourse, **E BUCK** (USA).

Exploring intercultural communication through literature and film, **J CONDON** (USA).

English and Tagalog in Philippine literature: a study of literary bilingualism, **I R CRUZ** (Philippines).

Exotic other; Western representation of India in English literature and film, **W DISSANAYAKE** (USA).

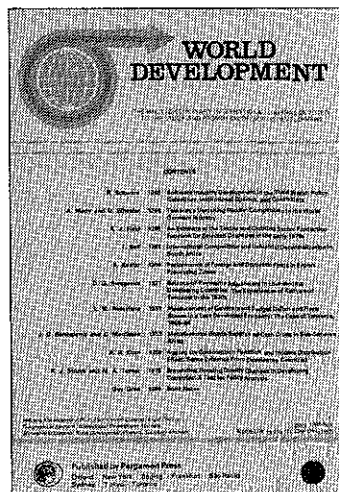
English and a grammarian's responsibility: the present and the future, **S GREENBAUM** (UK).

The power of the English language in Thai media, **N MASAVISUT** (Thailand) *et al.*

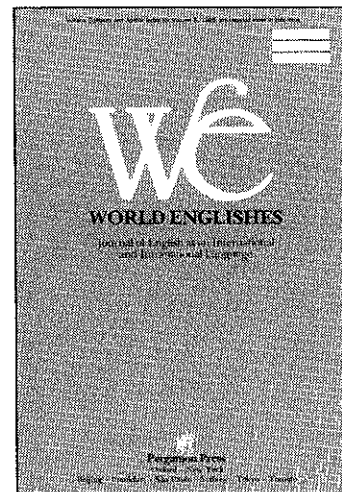
The power of words: pressure, prejudice and politics in our vocabularies and dictionaries, **T McARTHUR** (UK).

The cross-cultural dimensions of English in religion, politics and literature, **C D NARASIMHAIAH** (India).

Language as power apparatus: observations on English and cultural policy in nineteenth-century India, **S A RAHIM** (USA).



**Subscription Information**  
1988: Volume 16 (12 issues)  
ISSN: 0305-750X (386)



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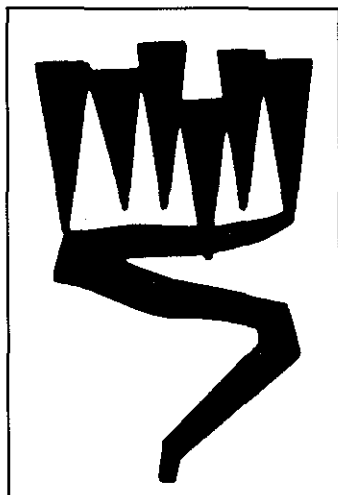
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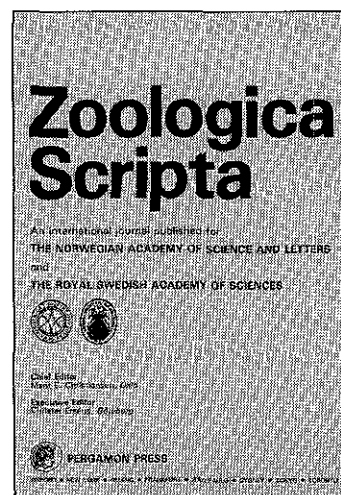
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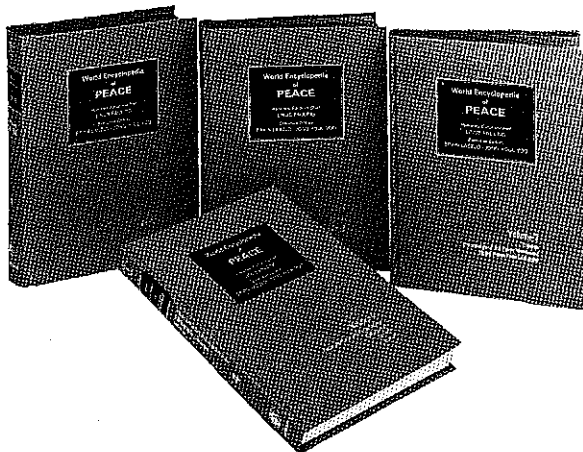
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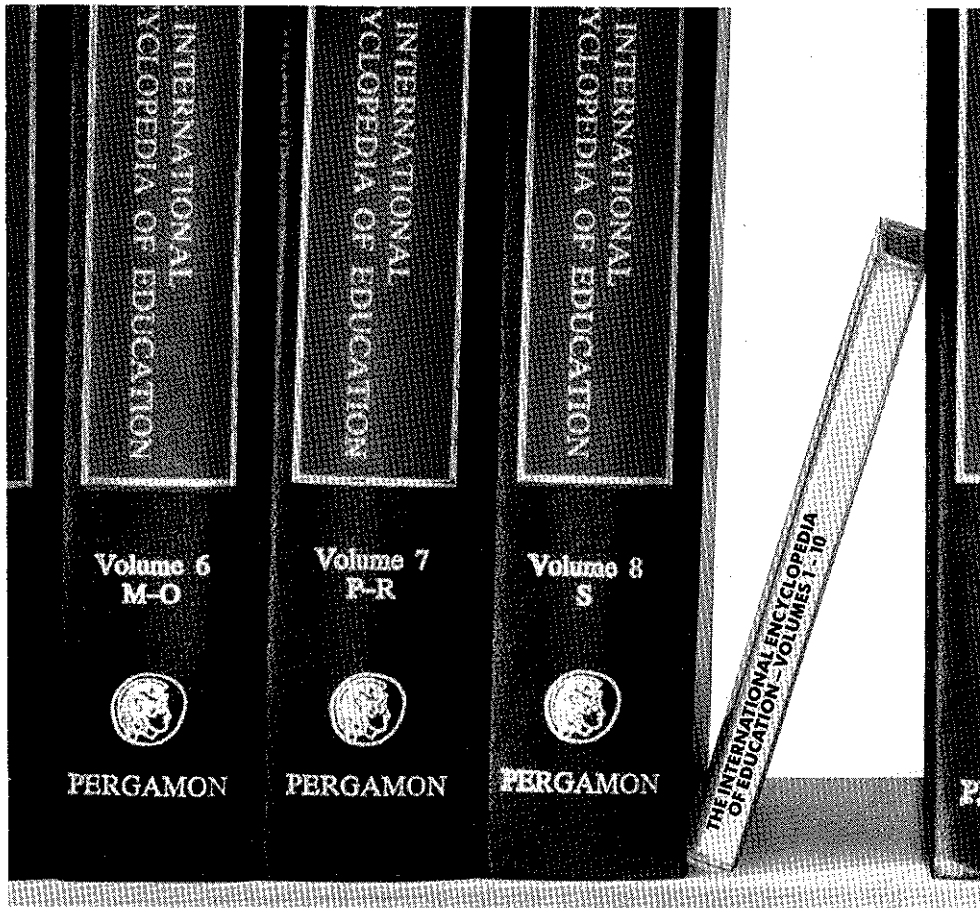
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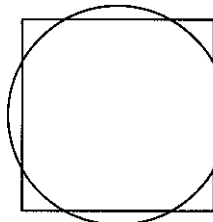
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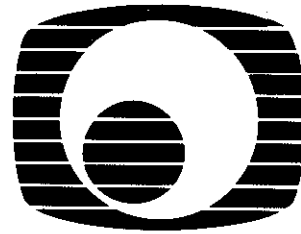
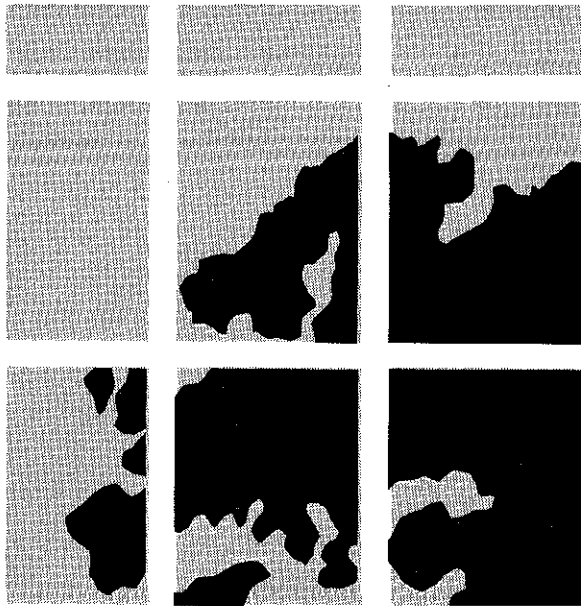
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