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WISCONSIN
ALUMNI
RESEARCH
FOUNDATION

September 30, 1981

Ms. Lucy Petitt
Paralegal
Office of the General Counsel
National Science Foundation
Washington, D. C. 20550

Dear Ms. Petitt:

Re: Institutional Patent Agreement
University of Wisconsin - National
Science Foundation

Attached you will find the various form sheets adopted by the National Science Foundation for the reporting of inventions under the Institutional Patent Agreement with the University of Wisconsin, which sheets will comprise the annual report called for under that Agreement. The report addresses the period from July 1, 1980 through June 30, 1981, which represents the fiscal year of the Wisconsin Alumni Research Foundation, the designee of the University of Wisconsin, under the Agreement.

Very truly yours,

UNIVERSITY OF WISCONSIN

By _____
Reuben H. Lorenz, Vice President and
Controller

WISCONSIN ALUMNI RESEARCH FOUNDATION

By _____
Howard W. Bremer, Patent Counsel

RHL:HWB:rw
Enc.

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:
April 30, 1981
No change from 1980

NSF File Number: 74-62 Disclosure Date: 3/26/74 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Anderson et al

Invention Title: Molecular Nitrogen Laser

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/20/75 ; S.N.: 579,268

U.S. Patent granted. Date: 2/28/78 ; No.: 4,077,020

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

*Anderson, Louis W.

FIRST LICENSEE: Fitzsimmons, William A. - ; Date of license: 4/11/78

National Research Group, Inc.

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977

to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977

to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

*Invention was put into use by inventors and their jointly owned Company before patent issued. Royalty-free license was issued to inventors and to their jointly owned Company under waiver provisions from Department of Energy.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-21 Disclosure Date: 12/6/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Davida-Kam.

Invention Title: A Complete Substitution Permutation Enciphering and
Deciphering Circuit

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 10/2/78 ; S.N.: 947,428

U.S. Patent granted. Date: 6/23/81 ; No.: 4,275,265

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977
to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ;
10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

April 30, 1981

STATUS OF NSF-FUNDED INVENTION

Same as 1980

NSF File Number: 77-36 Disclosure Date: 12/22/76 Waiver Date:

Grantee Institution: Wisconsin

Inventor(s): Davida-Wells

Invention Title: Digital Data Enciphering and Deciphering Circuit and Method

Individual or Organization seeking licensees for invention:

WARF

 U.S. Patent Application filed. Date: 10/3/77; S.N.: 839,034 U.S. Patent granted. Date: 5/6/80; No.: 4,202,051

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

Option Agreement -

FIRST LICENSEE: Quanta, Inc.; Date of license: 7/28/81Total license payments to grantee before Oct. 1, 1976: \$0.0Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-73-MCS77-02156 Disclosure Date: 6/17/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Davida-Wells-Kam

Invention Title: A Database Encryption System with Subkeys

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 1/30/80 ; S.N.: 117,140

U.S. Patent granted. Date: _____ ; No.: _____

Status of patent application if not yet granted: Amendment due 10/29/81.
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

Option Agreement -
FIRST LICENSEE: Quanta, Inc. ; Date of license: 7/28/81

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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Description:

SECOND LICENSEE: _____ ; Date of license: _____

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Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-97 Disclosure Date: 7/2/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Davies-Harford

Invention Title: Enzymatic Assay of Aminoglycoside Antibiotics in Serum,
Urine, Effluents, Animal Feeds, etc.

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/13/79; S.N.: 93,758

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: Application abandoned 7/27/81.

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? yes

Antimicrobial Agents and
If so: Journal title: Chemotherapy, 14, 69-72; Date: July 1978

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

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Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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If so, give date and describe briefly; if not, describe any intended
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Description:

Please provide above information for further licenses on the back, and
check here: _____ Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes _____ No x

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-97-PCM-79-13845 Disclosure Date: 11/6/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Davies-Harford

Invention Title: Assay for Aminoglycosides

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 8/25/80 ; S.N.: 181,270

U.S. Patent granted. Date: _____ ; No.: _____

Status of patent application if not yet granted: Amendment due 9/30/81
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977
to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ;
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Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia				
Canada	11/13/80	364,550		
Denmark				
France				
Germany				
Great Britain				

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-19-INT-76-05793 Disclosure Date: 12/4/79 Waiver Date:
 Grantee Institution: Wisconsin Inventor(s): DeLuca-Ikekawa-Tanaka-Kobayashi
 Invention Title: 24,24-Difluoro-25-Hydroxycholecalciferol
 Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/5/79 ; S.N.: 017,168

U.S. Patent granted. Date: 4/1/80 ; No.: 4,196,133

Status of patent application if not yet granted: _____
 If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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 If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
 Description: _____

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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 Description: _____

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____
 Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	2/22/80	55/809/80		
Canada	2/28/80	346646		
Israel	10/22/79	5/8525		
New Zealand	2/8/80	192826		
Belgium	3/3/80	199639	3/31/80	882036
Great Britain	3/3/80	8007118		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-47-INT-76-05793 Disclosure Date: 1/19/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Tanaka-Ikekawa-Kobayashi
Invention Title: 25-Hydroxy-26,26,26,27,27,27-Hexafluorocholecalciferol
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 2/4/80 ; S.N.: 118,149

U.S. Patent granted. Date: 2/3/81 ; No.: 4,248,791

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description: _____

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description: _____

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	2/3/81	66846/81		
New Zealand	1/21/81	196039		
Israel	1/19/81	61930		
Belgium	2/2/81	203676	2/27/81	887,344
France	2/2/81	8101957		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-48-INT-76-05793 Disclosure Date: 1/19/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Tanaka-Ikekawa-Kobayashi
Invention Title: Process for Preparing 24-Fluoro-25-Hydroxycholecalciferol
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 9/22/80; S.N.: 189,513

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: Application has been allowed.
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
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Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:
April 30, 1981

NSF File Number: 81-49-76-05793 Disclosure Date: 1/19/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Ikekawa-Tanaka-
Morisaki-Oshida
Invention Title: 1 α -Hydroxy-2 β -Fluorocholecalciferol

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 4/21/80 ; S.N.: 142,552

U.S. Patent granted. Date: 3/3/81 ; No.: 4,254,045

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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Description:

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Total license payments to grantee before Oct. 1, 1976: \$ _____

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Description:

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Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	4/15/81	69562/81		
Israel	1/30/81	62027		
New Zealand	1/27/81	196123		
Belgium	4/17/81	204531		
France	4/15/81	8107611		

OVER

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-20-INT-76-05793
Disclosure Date: 12/4/79 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Schnoes-Ikekawa-Tanaka-Kobayashi
Invention Title: 24,24-Difluoro-1 α ,25-Dihydroxycholecalciferol

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/28/79 ; S.N.: 024,848

U.S. Patent granted. Date: 5/6/80 ; No.: 4,201,881

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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Description: _____

SECOND LICENSEE: _____ ; Date of license: _____

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Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	2/22/80	55810/80		
Canada	1/17/80	343886		
Israel	10/22/79	58526		
New Zealand	10/23/79	191900		
Belgium	3/7/80	199728	3/31/80	822,143

STATUS OF NSF-FUNDED INVENTION

NSF File Number:
80-20-INT-76-05793

Disclosure Date: 12/4/79 Waiver Date:

Grantee Institution: Wisconsin

Inventor(s): DeLuca-Schnoes-Ikekawa-
Tanaka-Kobayashi

Invention Title: 24,24,-Difluoro-1 α ,25-Dihydroxycholecalciferol

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 8/6/79 ; S.N.: 064,254
(Division of U.S. S. N. 024,848)

U.S. Patent granted. Date: 10/7/80 ; No.: 4,226,788

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

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Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-68 Disclosure Date: 5/21/80 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Hart-Blackbourn

Invention Title: Multiple-Frequency-Generation for NMR Spectroscopy

Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: _____; S.N.: _____
Advised NSF 7/7/81 that we would not file a patent application due to insufficient
 U.S. Patent granted. Date: _____; No.: _____ information.

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

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Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes _____ No x

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-64 Disclosure Date: 3/21/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Hartwig-Perepezko

Invention Title: Strengthened Metallic Alloys for High Conductivity Application
at Cryogenic Temperatures
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 10/12/79; S.N.: 84,199

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: under Appeal

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____ Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-80-DMR-78-25754 Disclosure Date: 7/16/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Lagally-Martin

Invention Title: Scanning Low-Energy Electron Diffractometer with a Field
Emission Source
Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: _____; S.N.: _____
Invention being evaluated for potential patentability.
 U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____
Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____
Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes _____ No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-90-ENG-72-04229
Disclosure Date: 7/22/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Langer-Pate

Invention Title: Electrogenative Reduction of Nitrogen Oxides

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/23/80; S.N.: 152,728

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: under Amendment
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 74-52 Disclosure Date: 2/22/74 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mayhugh-Fullerton

Invention Title: Sensitized Thermoluminescent Phosphor and Method

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/13/74 S.N.: 523,322

U.S. Patent granted. Date: 6/8/76; No.: 3,962,586

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 78-22 Disclosure Date: 1/3/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mistretta

Invention Title: Time Dependent Subtraction Imaging - Mask Mode

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/15/78; S.N.: 960,830

(c-i-p of S.N. 906,686 - abandoned 6/15/79)

U.S. Patent granted. Date: 5/20/80; No.: 4,204,225

Status of patent application if not yet granted:

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

N. V. Philips Gloeilampen-

FIRST LICENSEE: fabrieken, Netherlands; Date of license: 1/1/79 - Cancelled

Entered into new Agreement with PHILIPS - 7/1/81.

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$10,000;

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? yes

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: July 1981;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____ Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	5/16/79	327771		
Holland	5/15/79	79.03807		
Japan	5/16/79	60249/79		
Great Britain	5/11/79	7916534		
W. Germany	5/15/79	P29194250		
France	5/15/79	7913277		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 78-29 Disclosure Date: 1/3/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mistretta-Kruger-Houk

Invention Title: Time Interval Differencing Without Contrast Agent

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/16/78; S.N.: 906,631

U.S. Patent granted. Date: 5/20/80; No.: 4,204,226

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____
(See NSF File Number 78-22;

FIRST LICENSEE: licensed to PHILIPS under _____; Date of license: _____
same Agreement)

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$(See NSF File
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0. Number 78-22)

Has the invention been put into commercial use under this license? yes

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: July 1981;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	5/16/79	327772		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-50 Disclosure Date: 2/19/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mistretta-Kruger-Riederer

Invention Title: Digital Fluoroscopic Three-Beam K-Edge Imaging of Iodine
on a Point by Point Basis Using Differences
Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: _____; S.N.: _____
No patent application filed to date; awaiting more data from inventors.
- U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____
Description: _____

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____
Description: _____

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes _____ No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-70 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Rasmussen-Loper-Perepezko

Invention Title: Emulsification of Metals in Glass and Molten Salts

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 9/26/80; S.N.: 190,948

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: Awaiting 1st Office Action.
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____
Description: _____

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____
Description: _____

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-69 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Rasmussen-Loper-Perepezko

Invention Title: Control of Solidification Microstructure by the Use of
Emulsified Metal Droplets

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: _____; S.N.: _____

Application drafted; awaiting more data from inventors.

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-71 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin

Inventor(s): Rasmussen-Loper-
Perepezko-Anderson

Invention Title: Use of Emulsified Metal Droplets as Seeds for the Production
of Nonequilibrium Phases

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: _____; S.N.: _____

No application has been filed to date; awaiting more data from inventors.

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes _____ No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 78-83 Disclosure Date: 8/4/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Scott

Invention Title: Fluxon Oscillators

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 7/12/78 ; S.N.: 923,955

U.S. Patent granted. Date: 1/1/80 ; No.: 4,181,902

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____ Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 75-99 Disclosure Date: 2/13/75 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Skoog-Schmitz-Hecht-Frye

Invention Title: Cytokinin Antagonists and Method of Production and Use

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 4/24/74 ; S.N.: 463,739

U.S. Patent granted. Date: 10/26/76 ; No.: 3,988,338

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: Burroughs-Wellcome ; Date of license: 4/1/76
License terminated 4/1/79

Total license payments to grantee before Oct. 1, 1976: \$1,000

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977
to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0
10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977
to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-68 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Smith-Perépezko-
Rasmussen-Loper

Invention Title: The Compaction of Amorphous Droplets Produced by
Emulsification

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/13/78 S.N.: 960,100

U.S. Patent granted. Date: 8/4/81; No.: 4,282,034

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description: _____

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description: _____

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	11/13/79	339,652		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 75-121 Disclosure Date: 3/18/75 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Trost-Tamaru

Invention Title: Oxidative Decarboxylation of Carboxylic Acids

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/19/75; S.N.: 578,533

U.S. Patent granted. Date: 2/8/77; No.: 4,007,211

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 76-92 Disclosure Date: 2/6/76 Waiver Date: Same as 1980

Grantee Institution: Wisconsin Inventor(s): Trost-Verhoeven

Invention Title: Catalytic Allylic Alkylation

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 1/5/76 ; S.N.: 646,640

U.S. Patent granted. Date: 9/27/77 ; No.: 4,051,157

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description: _____

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description: _____

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-75-CHE-76-15113 Disclosure Date: 6/23/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Trost-Vincent

Invention Title: Ring Expansion and Chain Extension Process and Reagents

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 7/3/80; S.N.: 165,768

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: under Amendment

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:
April 30, 1981

NSF File Number: 76-39 Disclosure Date: 9/30/75 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Walters

Invention Title: Mestastable Argon Stabilized Arc Device

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 9/17/75; S.N.: 614,194

U.S. Patent granted. Date: 11/29/77 No.: 4,060,708

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	9/16/76	261,337	5/6/80	1077125
Germany	9/16/76	P2641618.2 - abandoned 7/81		
Great Britain	9/10/76	37633/76	1/30/80	1556741 - abandoned
Japan	9/17/76	111657/76 - abandoned 7/81		9/10/81

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:

April 30, 1981

No change from 1980

NSF File Number: 74-46 Disclosure Date: 2/5/74 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Walters-Bernier

Invention Title: Spark Source with Electronic Switching Tubes

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 4/16/75; S.N.: 568,577

U.S. Patent granted. Date: 8/3/76; No.: 3,973,167

Status of patent application if not yet granted:

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0. (See

Has the invention been put into commercial use under this license? over.)

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Brazil	2/20/75	1380/75	- abandoned	12/2/77
Canada	2/21/75	220,578	9/26/78	1039346
W. Germany	2/8/75	P2505392.3		
Great Britain	2/20/75	7155175	2/1/78	1487816
Japan	2/20/75	21400/75		
Canada (Div.)	2/20/78	297,261	1/2/79	1045675

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 76-132 Disclosure Date: 5/3/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Walters-Coleman.

Invention Title: Spark Source with Regulation of Spark Magnitude by Control of Spark Timing

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/1/76 ; S.N.: 662,891

U.S. Patent granted. Date: 10/25/77 ; No.: 4,055,783

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description: _____

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description: _____

Please provide above information for further licenses on the back, and check here: _____ Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	9/9/77	286,403	11/18/80	1,089,926

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:

April 30, 1981

No change from 1980

NSF File Number: 76-122 Disclosure Date: 3/15/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): West-Beyer-Komatsu

Invention Title: Quinocyclopropene Derivatives

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/15/77 ; S.N.: 777,836

U.S. Patent granted. Date: 1/9/79 ; No.: 4,133,821

Status of patent application if not yet granted:

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;

Description:

Please provide above information for further licenses on the back, and check here: _____ Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:

April 30, 1981

No change from 1980

NSF File Number: 76-140 Disclosure Date: 3/25/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): J. C. Wright

Invention Title: Chemical Analysis of Ions Incorporated in Lattices Using Coherent Excitation Sources

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 2/11/76; S.N.: 657,252

U.S. Patent granted. Date: 2/8/77; No.: 4,007,009

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description: _____

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description: _____

Please provide above information for further licenses on the back, and check here: _____ Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	2/1/77	270,802	1/1/80	1068930

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-45 Disclosure Date: 2/26/80 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Zeikus & Ben-Bassat & Lamed & Ng

Invention Title: Ethanol Production from Cellulosic Biomass by Co-cultures of Clostridium Thermocellum and a New Isolate Clostridium Thermohydrosulfuricum
Individual or Organization seeking licensees for invention: Strain 39E

WARF

U.S. Patent Application filed. Date: 1/14/81; S.N.: 225,093

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: Awaiting 1st Office Action
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description: _____

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description: _____

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:
April 30, 1981

NSF File Number: 81-54-DEB-78-24071 Disclosure Date: 2/9/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Zeikus-Lynd

Invention Title: Bioconversion of Organic Pyrolysis Products to Chemical Feedstocks by Novel Technology that Employs Acidogenic Bacteria
Individual or Organization seeking licensees for invention:

WARE

U.S. Patent Application filed. Date: 7/23/81 ; S.N.: 286,246

U.S. Patent granted. Date: _____ ; No.: _____

Status of patent application if not yet granted: Awaiting 1st Office Action
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 74-62 Disclosure Date: 3/26/74 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Anderson et al

Invention Title: Molecular Nitrogen Laser

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/20/75; S.N.: 579,268

U.S. Patent granted. Date: 2/28/78; No.: 4,077,020

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

*Anderson, Louis W.

FIRST LICENSEE: Fitzsimmons, William A. -; Date of license: 4/11/78

National Research Group, Inc.

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

*Invention was put into use by inventors and their jointly owned Company before patent issued. Royalty-free license was issued to inventors and to their jointly owned Company under waiver provisions from Department of Energy.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-21 Disclosure Date: 12/6/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Davida-Kam

Invention Title: A Complete Substitution Permutation Enciphering and
Deciphering Circuit

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 10/2/78 ; S.N.: 947,428

U.S. Patent granted. Date: 6/23/81 ; No.: 4,275,265

Status of patent application if not yet granted: _____

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977

to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____ ;

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977

to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____ ;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

Same as 1980

NSF File Number: 77-36 Disclosure Date: 12/22/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Davida-Wells

Invention Title: Digital Data Enciphering and Deciphering Circuit and Method

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 10/3/77; S.N.: 839,034

U.S. Patent granted. Date: 5/6/80; No.: 4,202,051

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

Option Agreement -

FIRST LICENSEE: Quanta, Inc.; Date of license: 7/28/81

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-73-MCS77-02156 Disclosure Date: 6/17/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Davida-Wells-Kam

Invention Title: A Database Encryption System with Subkeys

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 1/30/80 ; S.N.: 117,140

U.S. Patent granted. Date: _____ ; No.: _____

Status of patent application if not yet granted: Amendment due 10/29/81.
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

Option Agreement -
FIRST LICENSEE: Quanta, Inc. ; Date of license: 7/28/81

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977
to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ;
10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____ ;

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977
to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____ ;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-97 Disclosure Date: 7/2/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Davies-Harford

Invention Title: Enzymatic Assay of Aminoglycoside Antibiotics in Serum,
Urine, Effluents, Animal Feeds, etc.

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/13/79; S.N.: 93,758.

U.S. Patent granted. Date: _____; No.: _____.

Status of patent application if not yet granted: Application abandoned 7/27/81.

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? yes.

Antimicrobial Agents and

If so: Journal title: Chemotherapy, 14, 69-72; Date: July 1978.

FIRST LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$0.0.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$ _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.

Are you still actively seeking licensees? Yes _____ No x _____.

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-97-PCM-79-13845 Disclosure Date: 11/6/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Davies-Harford

Invention Title: Assay for Aminoglycosides

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 8/25/80 ; S.N.: 181,270

U.S. Patent granted. Date: _____ ; No.: _____

Status of patent application if not yet granted: Amendment due 9/30/81
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

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Description:

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Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia				
Canada	11/13/80	364,550		
Denmark				
France				
Germany				
Great Britain				

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-19-INT-76-05793 Disclosure Date: 12/4/79 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Ikekawa-Tanaka-Kobayashi
Invention Title: 24,24-Difluoro-25-Hydroxycholecalciferol
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/5/79 ; S.N.: 017,168

U.S. Patent granted. Date: 4/1/80 ; No.: 4,196,133

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description:

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Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	2/22/80	55/809/80		
Canada	2/28/80	346646		
Israel	10/22/79	5/8525		
New Zealand	2/8/80	192826		
Belgium	3/3/80	199639	3/31/80	882036
Great Britain	3/3/80	8007118		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-47-INT-76-05793 Disclosure Date: 1/19/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Tanaka-Ikekawa-Kobayashi
Invention Title: 25-Hydroxy-26,26,26,27,27,27-Hexafluorocholecalciferol
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 2/4/80 ; S.N.: 118,149

U.S. Patent granted. Date: 2/3/81 ; No.: 4,248,791

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____
Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	2/3/81	66846/81		
New Zealand	1/21/81	196039		
Israel	1/19/81	61930		
Belgium	2/2/81	203676	2/27/81	887,344
France	2/2/81	8101957		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-48-INT-76-05793 Disclosure Date: 1/19/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Tanaka-Ikekawa-Kobayashi
Invention Title: Process for Preparing 24-Fluoro-25-Hydroxycholecalciferol
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 9/22/80 ; S.N.: 189,513 .

U.S. Patent granted. Date: _____ ; No.: _____ .

Status of patent application if not yet granted: Application has been allowed.
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____ .

If so: Journal title: _____ ; Date: _____ .

FIRST LICENSEE: _____ ; Date of license: _____ .

Total license payments to grantee before Oct. 1, 1976: \$0.0 .

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0 .

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description: _____

SECOND LICENSEE: _____ ; Date of license: _____ .

Total license payments to grantee before Oct. 1, 1976: \$ _____ .

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____ .

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description: _____

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes x No _____ .

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-49-76-05793 Disclosure Date: 1/19/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Ikekawa-Tanaka-
Morisaki-Oshida
Invention Title: 1α -Hydroxy- 2β -Fluorocholecalciferol
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 4/21/80; S.N.: 142,552

U.S. Patent granted. Date: 3/3/81; No.: 4,254,045

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

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Description:

SECOND LICENSEE: _____; Date of license: _____

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Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	4/15/81	69562/81		
Israel	1/30/81	62027		
New Zealand	1/27/81	196123		
Belgium	4/17/81	204531		
France	4/15/81	8107611		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-20-INT-76-05793
Disclosure Date: 12/4/79 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): DeLuca-Schnoes-Ikekawa-Tanaka-Kobayashi

Invention Title: 24,24-Difluoro-1 α ,25-Dihydroxycholecalciferol

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/28/79 ; S.N.: 024,848

U.S. Patent granted. Date: 5/6/80 ; No.: 4,201,881

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Australia	2/22/80	55810/80		
Canada	1/17/80	343886		
Israel	10/22/79	58526		
New Zealand	10/23/79	191900		
Belgium	3/7/80	199728	3/31/80	822,143

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-20-INT-76-05793 Disclosure Date: 12/4/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): DeLuca-Schnoes-Ikekawa-Tanaka-Kobayashi

Invention Title: 24,24, -Difluoro-1 α ,25-Dihydroxycholecalciferol

Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: 8/6/79 ; S.N.: 064,254 .
(Division of U. S. S. N. 024,848)
- U.S. Patent granted. Date: 10/7/80 ; No.: 4,226,788 .

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ;
10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0 .

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;
Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

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Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

<u>Country of filing</u>	<u>Filing date</u>	<u>Filing No.</u>	<u>Date Granted</u>	<u>Patent No.</u>
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-68 Disclosure Date: 5/21/80 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Hart-Blackbourn

Invention Title: Multiple-Frequency-Generation for NMR Spectroscopy

Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: _____; S.N.: _____
Advised NSF 7/7/81 that we would not file a patent application due to insufficient
 U.S. Patent granted. Date: _____; No.: _____ information.

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
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If so, give date and describe briefly; if not, describe any intended
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Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes _____ No x _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-64 Disclosure Date: 3/21/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Hartwig-Perepezko

Invention Title: Strengthened Metallic Alloys for High Conductivity Application
at Cryogenic Temperatures

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 10/12/79; S.N.: 84,199

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: under Appeal

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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Description:

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Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-80-DMR-78-25754
Disclosure Date: 7/16/81 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Lagally-Martin

Invention Title: Scanning Low-Energy Electron Diffractometer with a Field Emission Source
Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: _____; S.N.: _____
Invention being evaluated for potential patentability.
- U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

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Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

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Description:

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Are you still actively seeking licensees? Yes _____ No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-90-ENG-72-04229
Disclosure Date: 7/22/80 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Langer-Pate

Invention Title: Electrogenative Reduction of Nitrogen Oxides

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/23/80; S.N.: 152,728

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: under Amendment
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

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Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

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If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 74-52 Disclosure Date: 2/22/74 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mayhugh-Fullerton

Invention Title: Sensitized Thermoluminescent Phosphor and Method

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/13/74; S.N.: 523,322

U.S. Patent granted. Date: 6/8/76; No.: 3,962,586

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

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Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

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Description:

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Are you still actively seeking licensees? Yes NO _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 78-22 Disclosure Date: 1/3/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mistretta

Invention Title: Time Dependent Subtraction Imaging - Mask Mode

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/15/78; S.N.: 960,830

(c-i-p of S. N. 906,686 - abandoned 6/15/79)

U.S. Patent granted. Date: 5/20/80; No.: 4,204,225

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

N. V. Philips Gloeilampen-

FIRST LICENSEE: fabrieken, Netherlands; Date of license: 1/1/79 - Cancelled

Entered into new Agreement with PHILIPS - 7/1/81.

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$10,000;

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? yes

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: July 1981;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	5/16/79	327771		
Holland	5/15/79	79.03807		
Japan	5/16/79	60249/79		
Great Britain	5/11/79	7916534		
W. Germany	5/15/79	P29194250		
France	5/15/79	7913277		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 78-29 Disclosure Date: 1/3/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mistretta-Kruger-Houk

Invention Title: Time Interval Differencing Without Contrast Agent

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/16/78; S.N.: 906,631

U.S. Patent granted. Date: 5/20/80; No.: 4,204,226

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

(See NSF File Number 78-22;

FIRST LICENSEE: licensed to PHILIPS under _____; Date of license: _____
same Agreement)

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$(See NSF File 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0. Number 78-22)

Has the invention been put into commercial use under this license? yes

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: July 1981;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	5/16/79	327772		

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-50 Disclosure Date: 2/19/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Mistretta-Kruger-Riederer

Invention Title: Digital Fluoroscopic Three-Beam K-Edge Imaging of Iodine
on a Point by Point Basis Using Differences
Individual or Organization seeking licensees for invention:

WARF

- U.S. Patent Application filed. Date: _____; S.N.: _____
No patent application filed to date; awaiting more data from inventors.
- U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes _____ No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-70 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Rasmussen-Loper-Perepezko

Invention Title: Emulsification of Metals in Glass and Molten Salts

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 9/26/80; S.N.: 190,948

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: Awaiting 1st Office Action.
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977
to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;
10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977
to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;
Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____
Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

April 30, 1981

Same as 1980

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-69 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin

Inventor(s): Rasmussen-Loper-Perepezko

Invention Title: Control of Solidification Microstructure by the Use of
Emulsified Metal Droplets

Individual or Organization seeking licensees for invention:

WARF

 U.S. Patent Application filed. Date: _____; S.N.: _____.

Application drafted; awaiting more data from inventors.

 U.S. Patent granted. Date: _____; No.: _____.

Status of patent application if not yet granted: _____.

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____.

If so: Journal title: _____; Date: _____.

FIRST LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$0.0 _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 _____; Oct. 1, 1977

to Sep. 30, 1978: \$0.0 _____; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 _____;

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$ _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.Are you still actively seeking licensees? Yes x No _____.

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-71 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Rasmussen-Loper-
Perepezko-Anderson

Invention Title: Use of Emulsified Metal Droplets as Seeds for the Production
of Nonequilibrium Phases

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: _____; S.N.: _____.

No application has been filed to date; awaiting more data from inventors.

U.S. Patent granted. Date: _____; No.: _____.

Status of patent application if not yet granted: _____.

If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____.

If so: Journal title: _____; Date: _____.

FIRST LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$0.0 _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 _____; Oct. 1, 1977

to Sep. 30, 1978: \$0.0 _____; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 _____;

10/1/79 to 9/30/80: \$0.0 _____; 10/1/80 to 9/30/81: \$0.0 _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$ _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.

Are you still actively seeking licensees? Yes _____ No _____.

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 78-83 Disclosure Date: 8/4/78 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Scott

Invention Title: Fluxon Oscillators

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 7/12/78; S.N.: 923,955

U.S. Patent granted. Date: 1/1/80; No.: 4,181,902

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 75-99 Disclosure Date: 2/13/75 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Skoog-Schmitz-Hecht-Frye

Invention Title: Cytokinin Antagonists and Method of Production and Use

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 4/24/74 ; S.N.: 463,739

U.S. Patent granted. Date: 10/26/76 ; No.: 3,988,338

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: Burroughs-Wellcome ; Date of license: 4/1/76 -
License terminated 4/1/79

Total license payments to grantee before Oct. 1, 1976: \$1,000

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;

Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____ ;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 79-68 Disclosure Date: 3/26/79 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Smith-Perépezko-
Rasmussen-Loper
Invention Title: The Compaction of Amorphous Droplets Produced by
Emulsification
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 11/13/78 S.N.: 960,100

U.S. Patent granted. Date: 8/4/81 ; No.: 4,282,034

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977
to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ;
10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____ ;
Description:

SECOND LICENSEE: _____ ; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977
to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

Has the invention been put into commercial use under this license? _____
If so, give date and describe briefly; if not, describe any intended
commercial use (use back for extended comments). Date: _____ ;
Description:

Please provide above information for further licenses on the back, and
check here: _____. Is invention available to other licensees? _____.
Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	11/13/79	339,652		

STATUS OF NSF-FUNDED INVENTION

OMB NO. 99-R0308
APPROVAL EXPIRES:
April 30, 1981
Same as 1980

NSF File Number: 75-121 Disclosure Date: 3/18/75 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Trost-Tamaru

Invention Title: Oxidative Decarboxylation of Carboxylic Acids

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 5/19/75; S.N.: 578,533.

U.S. Patent granted. Date: 2/8/77; No.: 4,007,211.

Status of patent application if not yet granted: _____.

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____.

If so: Journal title: _____; Date: _____.

FIRST LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$0.0.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended

commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$ _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended

commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.

Are you still actively seeking licensees? Yes x No _____.

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

April 30, 1981

Same as 1980

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 76-92 Disclosure Date: 2/6/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Trost-Verhoeven

Invention Title: Catalytic Allylic Alkylation

Individual or Organization seeking licensees for invention:

WARF

 U.S. Patent Application filed. Date: 1/5/76; S.N.: 646,640. U.S. Patent granted. Date: 9/27/77; No.: 4,051,157.

Status of patent application if not yet granted: _____.

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____.

If so: Journal title: _____; Date: _____.

FIRST LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$0.0.Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$ _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.

Are you still actively seeking licensees? Yes x No _____.

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 80-75-CHE-76-15113 Disclosure Date: 6/23/80 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Trost-Vincent

Invention Title: Ring Expansion and Chain Extension Process and Reagents
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 7/3/80 ; S.N.: 165,768

U.S. Patent granted. Date: ; No.:

Status of patent application if not yet granted: under Amendment
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication?

If so: Journal title: ; Date:

FIRST LICENSEE: ; Date of license:

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0

Has the invention been put into commercial use under this license?
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: ;
Description:

SECOND LICENSEE: ; Date of license:

Total license payments to grantee before Oct. 1, 1976: \$

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$

Has the invention been put into commercial use under this license?
If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: ;
Description:

Please provide above information for further licenses on the back, and check here: . Is invention available to other licensees?
Are you still actively seeking licensees? Yes x No

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

OMB NO. 99-R0308
 APPROVAL EXPIRES:
 April 30, 1981

NSF File Number: 76-39 Disclosure Date: 9/30/75 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Walters

Invention Title: Mestastable Argon Stabilized Arc Device

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 9/17/75; S.N.: 614,194.

U.S. Patent granted. Date: 11/29/77 No.: 4,060,708.

Status of patent application if not yet granted: _____.

If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____.

If so: Journal title: _____; Date: _____.

FIRST LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$0.0.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977

to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0;

10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____.

Total license payments to grantee before Oct. 1, 1976: \$ _____.

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977

to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____.

Has the invention been put into commercial use under this license? _____.

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____.

Are you still actively seeking licensees? Yes No _____.

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	9/16/76	261,337	5/6/80	1077125
Germany	9/16/76	P2641618.2 - abandoned 7/81		
Great Britain	9/10/76	37633/76	1/30/80	1556741 - abandoned
Japan	9/17/76	111657/76 - abandoned 7/81 9/10/81		

STATUS OF NSF-FUNDED INVENTION

No change from 1980

NSF File Number: 74-46 Disclosure Date: 2/5/74 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Walters-Bernier

Invention Title: Spark Source with Electronic Switching Tubes

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 4/16/75; S.N.: 568,577

U.S. Patent granted. Date: 8/3/76; No.: 3,973,167

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0; Oct. 1, 1977 to Sep. 30, 1978: \$0.0; Oct. 1, 1978 to Sep. 30, 1979: \$0.0; 10/1/79 to 9/30/80: \$0.0; 10/1/80 to 9/30/81: \$0.0. (See

Has the invention been put into commercial use under this license? over).

If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: _____;

Description:

SECOND LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$ _____

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____; Oct. 1, 1977 to Sep. 30, 1978: \$ _____; Oct. 1, 1978 to Sep. 30, 1979: \$ _____

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Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____

Are you still actively seeking licensees? Yes No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Brazil	2/20/75	1380/75	- abandoned	12/2/77
Canada	2/21/75	220,578	9/26/78	1039346
W. Germany	2/8/75	P2505392.3		
Great Britain	2/20/75	7155175	2/1/78	1487816
Japan	2/20/75	21400/75		
Canada (Div.)	2/20/78	297,261	1/2/79	1045675

STATUS OF NSF-FUNDED INVENTION

OMB NO. 99-R0308
 APPROVAL EXPIRES:
 April 30, 1981

NSF File Number: 76-132 Disclosure Date: 5/3/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Walters-Coleman.

Invention Title: Spark Source with Regulation of Spark Magnitude by Control of Spark Timing

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/1/76 ; S.N.: 662,891 .

U.S. Patent granted. Date: 10/25/77 ; No.: 4,055,783 .

Status of patent application if not yet granted: _____
 If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____ .

FIRST LICENSEE: _____ ; Date of license: _____ .

Total license payments to grantee before Oct. 1, 1976: \$0.0 .

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$0.0 ; Oct. 1, 1977 to Sep. 30, 1978: \$0.0 ; Oct. 1, 1978 to Sep. 30, 1979: \$0.0 ; 10/1/79 to 9/30/80: \$0.0 ; 10/1/80 to 9/30/81: \$0.0 .

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Description:

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Total license payments to grantee before Oct. 1, 1976: \$ _____ .

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ _____ ; Oct. 1, 1977 to Sep. 30, 1978: \$ _____ ; Oct. 1, 1978 to Sep. 30, 1979: \$ _____ .

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Description:

Please provide above information for further licenses on the back, and check here: _____. Is invention available to other licensees? _____ .

Are you still actively seeking licensees? Yes x No _____ .

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	9/9/77	286,403	11/18/80	1,089,926

STATUS OF NSF-FUNDED INVENTION

OMB NO. 59-R0500

APPROVAL EXPIRES:

April 30, 1981

No change from 1980

NSF File Number: 76-122 Disclosure Date: 3/15/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): West-Beyer-Komatsu

Invention Title: Quinocyclopropene Derivatives

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 3/15/77; S.N.: 777,836

U.S. Patent granted. Date: 1/9/79; No.: 4,133,821

Status of patent application if not yet granted:
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication?

If so: Journal title: ; Date:

FIRST LICENSEE: ; Date of license:

Total license payments to grantee before Oct. 1, 1976: \$0.0

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Description:

SECOND LICENSEE: ; Date of license:

Total license payments to grantee before Oct. 1, 1976: \$

Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$

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Description:

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Are you still actively seeking licensees? Yes x No

FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF NSF-FUNDED INVENTION

OMB NO. 59-R0300

APPROVAL EXPIRES:

April 30, 1981

No change from 1980

NSF File Number: 76-140 Disclosure Date: 3/25/76 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): J. C. Wright

Invention Title: Chemical Analysis of Ions Incorporated in Lattices Using
Coherent Excitation Sources

Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 2/11/76; S.N.: 657,252.

U.S. Patent granted. Date: 2/8/77; No.: 4,007,009.

Status of patent application if not yet granted: _____
If U.S. patent has been denied or the application has been abandoned, has
the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

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Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
Canada	2/1/77	270,802	1/1/80	1068930

STATUS OF NSF-FUNDED INVENTION

APPROVAL EXPIRES:
April 30, 1981

NSF File Number: 80-45 Disclosure Date: 2/26/80 Waiver Date:

Grantee Institution: Wisconsin Inventor(s): Zeikus & Ben-Bassat & Lamed & Ng

Invention Title: Ethanol Production from Cellulosic Biomass by Co-cultures of Clostridium Thermocellum and a New Isolate Clostridium Thermohydrosulfuricum
Individual or Organization seeking licensees for invention: Strain 39E

WARF

U.S. Patent Application filed. Date: 1/14/81; S.N.: 225,093

U.S. Patent granted. Date: _____; No.: _____

Status of patent application if not yet granted: Awaiting 1st Office Action
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____; Date: _____

FIRST LICENSEE: _____; Date of license: _____

Total license payments to grantee before Oct. 1, 1976: \$0.0

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Description:

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Are you still actively seeking licensees? Yes x No _____

FOREIGN PATENT STATUS

Country of filing	Filing date	Filing No.	Date Granted	Patent No.
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STATUS OF NSF-FUNDED INVENTION

NSF File Number: 81-54-DEB-78-24071 Disclosure Date: 2/9/81 Waiver Date:

81-54-DEB-78-24071

Grantee Institution: Wisconsin

Inventor(s): Zeikus-Lynd

Invention Title: Bioconversion of Organic Pyrolysis Products to Chemical Feedstocks by Novel Technology that Employs Acidogenic Bacteria
Individual or Organization seeking licensees for invention:

WARF

U.S. Patent Application filed. Date: 7/23/81 ; S.N.: 286,246

U.S. Patent granted. Date: _____ ; No.: _____

Status of patent application if not yet granted: Awaiting 1st Office Action
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? _____

If so: Journal title: _____ ; Date: _____

FIRST LICENSEE: _____ ; Date of license: _____

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FOREIGN PATENT STATUS

Country of filing Filing date Filing No. Date Granted Patent No.