WISCONSIN ALUMNI RESEARCH FOUNDATION

POST OFFICE BOX 7365

M A D I S O N , W I S . 5 3 7 0 7 . TELEPHONE (608) 263-2500

September 17, 1979

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, 1978 through July 80, 1979, which represents the fiscal year of the Wisconsin Alumni Research Foundation, the designee of the University of Wisconsin, under the Agreement.

In our letter of August 16, 1978 to Mr. Frank L. Huband we presented some commentary on this type of annual report and refer you to that letter for our comments which we believe are still appropriate.

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.

APPROVAL EXPIRES:

April 30, 1981

OMB NO. 99-R0308

STATUS OF NSF-FUNDED INVENTION

No change from 1978 NSF File Number: 74-62 Disclosure Date: 3/26/74 Waiver Date: Grantee Institution: Wisconsin Inventor(s): Anderson et al ભારત કર્માં કર્માં મુખ્ય પ્રાપ્ય છે. તે સાંભળી દાંચો માટે કે મુખ્ય માટે કે મુખ્ય માટે કે મુખ્ય માટે કે મુખ્ય મ N TOLE OF BUILDING Individual or Organization seeking licensees for invention: [v] U.S. Patent Application filed. Date: 5/20/75; S.N.: 579 268 $\sqrt{1}$ U.S. Patent granted. Date: 2/28/78; No.: 4.077.020Status 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: \$_ 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? yes If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date: ____; - over Description: ; Date of license: SECOND LICENSEE: 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.

NSF File Number: 76-142 Disclosure Date: 5/18/76 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Blaedel-Jenkins
Invention Title: A Reagentless Lactate Electrode
Individual or Organization seeking licensees for invention: WARF
X U.S. Patent Application filed. Date: 12/13/76; S.N.: 752,421
U.S. Patent granted. Date: ; No.: Application abandoned -
Status of patent application if not yet granted: NSF notified 11/14/78 If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? yes.
If so: Journal title: Analytical Chemistry ; Date: July 1976.
FIRST LICENSEE:; Date of license:
Total license payments to grantee before Oct. 1, 1976: \$ Payments from Oct. 1, 1976 to Sep. 30, 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: Commercial use (use back for extended comments).
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

NSF File Number: 79-22 Disclosure Date: 12/16/78 Waiver Date:
Grantse Institution: Wisconsin Inventor(s): Cooper-Lilaonitkul
Invention Title: Ultra Low Frequency Test Assembly
Individual or Organization seeking licensees for invention: WARF
U.S. Patent Application filed. Date: ; S.N.: NSF notified of decision not to file patent application - 6/13/79. 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 LICENSES:; 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:
SECOND LICENSEE: ; Date of license:
Potal 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: Conservation:
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

NSF File Number: 79-21 Disclosure Date: 12/0//8 Walver 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
$\boxed{\text{x}}$ U.S. Patent Application filed. Date: $\boxed{10/2/78}$; S.N.: $\boxed{947,428}$.
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: \$
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:
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

NOT TITE MUNDEL. 11-00 DISCLOSULE DATE: 12/22/10 Marver Date:
Grantee Institution: Wisconsin Inventor(s): Davida-Wells
Invention Title: Digital Data Enciphering and Deciphering Circuit and Metho
Individual or Organization seeking licensees for invention: WARF
$\boxed{\text{X}}$ U.S. Patent Application filed. Date: $\boxed{10/3/77}$; S.N.: $\boxed{839,034}$.
U.S. Patent granted. Date:; No.:
Application in condition Status of patent application if not yet granted: for allowance 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: \$
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:
SECOND LICENSEE; ; Date of license:
Total license payments to grantee before Oct. 1, 1976: \$
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Cct. 1,1977 to Sep. 30, 1978: \$; Cct. 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 INVESTION April 30, 1981

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: ; S.N.: Application in process of being drafted. 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: \$ Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ to Sep. 30, 1978: \$ Cct. 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:
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 April 30, 1981

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: ; S.N.: Application drafted and will be filed shortly. 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: \$
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:
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.

OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981

STATUS OF NSF-FUNDED INVENTION

No change from 1978

NSF File Number: 74-52 Disclosure Date: 2/22/74 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Mayhugh & Fullerton
Invention Title: Sensitized Thermoluminiscent Phosphor & Method
Individual or Organization seeking licensees for invention: WARF U.S. Patent Application filed. Date: $11/13/74$; S.N.: $_{523,322}$.
\[\forall \] U.S. Patent granted. Date: \(\frac{6/8/76}{} ; \text{ No.: } \(\frac{3,962,586}{} \).
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: \$
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:
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 FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.
dominal or retained trained to the order and the

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
X U.S. Patent Application filed. Date: 5/16/78; S.N.: 906,686 - abandoned 6/15/79 11/15/78 960,830 - continuation-in- U.S. Patent granted. Date: ; No.: part
Status of patent application if not yet granted: Application 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: N.V. Philips Gloeilampen-; Date of license: 1/1/79 . fabrienken, Netherlands 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: \$10,000 .
Has the invention been put into commercial use under this license? no 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? no 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

NSF File Number: 78-30 Disclosure Date: 1/3/78 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Mistretta
Invention Title: Tomographic Time Interval Differencing
Individual or Organization seeking licensees for invention: WARF
U.S. Patent Application filed. Date: ; S.N.: NSF notified of decision not to file patent application - 10/27/78 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: \$
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:
SECOND LICENSEE; ; Date of license:
Total license payments to grantee before Oct. 1, 1976: \$
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Cct. 1,1977 to Sep. 30, 1978: \$; Cct. 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.

NSF File Number: 78-29 Disclosure Date: 1/3/78 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Mistretta-Kruger-Hou
Invention Title: Time Interval Differencing Without Contrast Agent
Individual or Organization seeking licensees for invention: WARF
\boxed{x} U.S. Patent Application filed. Date: $5/16/78$; S.N.: 906,631
U.S. Patent granted. Date: ; No.:
Status of patent application if not yet granted: Application 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: (See NSF File Number 78-22; Date of license: licensed to N.V. Philips under same Agreement) 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:
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

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 application has been filed to date: ; No.: U.S. Patent granted. Date: 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 LICENSES: ; 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: ; Date of license: SECOND LICENSEE: 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.

Not rife Number: 77-70 Discrosure Date: 5/20/79 Warver 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: ; S.N.: Application drafted and will be filed shortly. 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: \$
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:
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.

NSF File Number: 79-69 Disclosure Date: 3/26/79 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Rasmussen-Loper-Perepez
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 in process of being drafted. 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 LICENSES: ; Date of license: .
Potal 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:
ECOND 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: \$
Is 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? Is you still actively seeking licensees? Yes No .
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

STATUS OF MSF-FUNDED INVESTION April 30, 1981

NSF File Number: 79-71 Disclosure	Date: 3/26/79 Waiver Date:
Grantee Institution: Wisconsin	Inventor(s): Rasmussen-Loper- Perepezko-Anderson
of Nonequilibrium F	Metal Droplets as Seeds for the Production Phases
Individual or Organization seeking 1 WARF	icensees for invention:
U.S. Patent Application filed. D No application has been filed to dat U.S. Patent granted. Date:	e.
Status of patent application if not If U.S. patent has been denied or the invention been disclosed in a pu	e application has been abandoned, has
If so: Journal title:	; Date:
FIRST LICENSEE:	; Date of license:
Total license payments to grantee be	fore Oct. 1, 1976: \$
Payments from Oct. 1, 1976 to Sep. 3 to Sep. 30, 1978: \$; Oct.	0, 1977: \$; Oct. 1, 1977 1, 1978 to Sep. 30, 1979: \$
Has the invention been put into comme If so, give date and describe briefly commercial use (use back for extended Description:	y; if not, describe any intended
SECOND LICENSEE:	; Date of license:
Total license payments to grantee be	fore Oct. 1, 1976: \$
Payments from Oct. 1, 1976 to Sep. 30 to Sep. 30, 1978: \$; Oct.	0, 1977: \$; Oct. 1,1977 1, 1978 to Sep. 30, 1979: \$
Has the invention been put into comme If so, give date and describe briefly commercial use (use back for extended Description:	7; if not, describe any intended
Please provide above information for check here: . Is invention availare you still actively seeking licens	Lable to other licensees?
FOREIGN PA	TENT STATUS

NSF File Number: /8-82 Disclosure Date: 8/4//8 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Reich-Chow
Invention Title: Benzeneseleninic Acids as Catalysts for Hydrogen Peroxide Oxidation Individual or Organization seeking licensees for invention:
WARF U.S. Patent Application filed. Date: ; S.N.: NSF notified of decision not to file patent application - 5/14/79.
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: \$
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: Commercial use (use back for extended comments).
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 Piling date Filing No. Data Granted Patent No.

NSF File Number: 78-83 Disclosure Date: 8/4/78 Walver Date:
Grantee Institution: Wisconsin Inventor(s): Scott
Invention Title: Fluxon Oscillators
Individual or Organization seeking licensees for invention: WARF
X U.S. Patent Application filed. Date: 7/12/78; S.N.: 923,955
U.S. Patent granted. Date:; No.:
Status of patent application if not yet granted: Application 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: \$
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:
SECOND LICENSEE:; Date of license:
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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 X No
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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 & Method of Production & Use
Individual or Organization seeking licensees for invention: WARF
XX U.S. Patent Application filed. Date: 4/24/74; S.N.: 463,739
X 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: \$; Oct. 1, 1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$
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FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

NSF File Number: 79-68 Disclosure Date: 3/26/79 Waiver Date:
Grantse Institution: Wisconsin Inventor(s): Smith-Perepezko-Rasmussen Loper
Invention Title: The Compaction of Amorphous Droplets Produced by Emulsification
Individual or Organization seeking licensees for invention: WARF
X U.S. Patent Application filed. Date: 11/13/78; S.N.: 960,100
U.S. Patent granted. Date: ; No.:
Status of patent application if not yet granted: Received 1st Office Action 7/30/7 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: \$
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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FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981 No change from 1978

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.: $578,533$.
X 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: \$
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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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 x No
FOREIGN PATENT STATUS

OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981

STATUS OF NSF-FUNDED INVENTION

No change from 1978 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
$\overline{\text{XX}}$ U.S. Patent Application filed. Date: $1/5/76$; S.N.: 646,640
\overline{X} 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: \$
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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FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981 No change from 1978 er Date:

STATUS OF NSF-FUNDED INVENTION

No chan

NSF File Number: 76-39 Disclosure Date: 9/30/75 Walver Date:
Grantee Institution: Wisconsin Inventor(s): Walters
Invention Title: Mestastable Argon Stabilized Arc Device
Individual or Organization seeking licensees for invention:
WARF $[XX]$ 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: \$
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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Total license payments to grantee before Oct. 1, 1976: \$
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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 x No
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.
Canada 9/16/76 261,337 Germany 9/16/76 P2641618.2 Great Britain 9/10/76 37633/76 Japon 9/17/76 111657/76

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 \boxed{X} U.S. Patent Application filed. Date: $4/16/75$; S.N.: $568,577$
\[\text{U.S. Patent granted.} \text{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: \$
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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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

NSF File Number: /0-132 Disclosure Date: 5/3//0 Walver 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
\boxed{x} U.S. Patent Application filed. Date: $\boxed{3/1/76}$; S.N.: $\boxed{662,891}$.
\mathbb{Z} 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: \$
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 X No .
FOREIGN PATENT STATUS
Country of filing Filing date Filing No. Date Granted Patent No.
Canada 9/9/77 286 403

NSF File Number: 70-122 Disclosure Date: 3/15/70 Walver Date:
Grantee Institution: Wisconsin Inventor(s): West-Beyer-Komatsu
Invention Title: Quinocyclopropene Derivatives
Individual or Organization seeking licensees for invention: WARF
$\boxed{\text{X}}$ U.S. Patent Application filed. Date: $\boxed{3/15/77}$; S.N.: $\boxed{777,836}$
X 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 LICENSES: ; 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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OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981

STATUS OF NSF-FUNDED INVENTION

No change from 1978 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
X U.S. Patent Application filed. Date: 2-11-76; S.N.: 657,252
X 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: \$
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FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No. Canada 2/1/77 270,802