August 16, 1978

Mr. Frank L. Huband Assistant to the General Counsel National Science Foundation Washington, D.C. 20550

Dear Mr. Huband:

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32,892

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

Attached you will find the various sheets which were supplied through Miss Lucy Petitt on the inventions to which title resides in the University of Wisconsin-Wisconsin Alumni Research Foundation under the provisions of the Institutional Patent Agreement or based upon specific waivers. These sheets in combination will comprise the annual report from WARF as required under the terms of the Institutional Patent Agreement.

In earlier reports we have made to the National Science Foundation we have voluntarily inserted an approximation of the expense which WARF has encountered in carrying out the patenting and licensing process and it might be advisable to provide on your prepared forms a place for the insertion of such expense. I might add that in listing the dollar values in earlier reports only the out-of-pocket expenses were generally included.

It appears that the primary thrust of the new forms focuses on the income aspects from licensing the invention whereas it would be more appropriate to focus on the benefit which the public derives from the invention. Moreover, the single sheet forms do not, in our opinion, provide as ready a summary position as the type of compilation which we have provided earlier as an annual report.

Mr. Frank L. Huband

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August 16, 1978

The foregoing comments are made responsive to the request for our views on the new reporting format.

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.

bc--Prof. Wm. H. Young Mr. Kent Hill Messrs, Pike-Woerpel-Hinkes

UMB NO. 99-R0308 **APPROVAL EXPIRES:** STATUS OF NSF-FUNDED INVENTION April 30, 1981 NSF File Number: 74-62 Disclosure Date: 3/26/74 Waiver Date: Grantee Institution: Wisconsin Course Inventor(s): Anderson et alvei State Sta Invention Title: Molecular (Nitrogen Taser Viric, dis. 1 C) for sociosyri White E and the attent of Energy. Individual or Organization seeking licensees for invention: WARF y U.S. Patent Application filed. Date: 5/20/75; S.N.: 579 268 Ix 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: _____. 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.

APPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: 76-142 Disclosure Date: 5/18/76 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Blaedel and Jenkins
Invention Title: A Reagentless Lactate Electrode
Individual or Organization seeking licensees for invention:
WARF WI.S. Patent Application filed. Date: <u>12/13/76</u> ; S.N.: <u>752,421</u> .
U.S. Patent granted. Date: ; No.:
Under Final Rejection; interview Status of patent application if not yet granted: <u>with Examiner to be held</u> in Aug. 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.
Germany 12/27/76 P2659071.6
"我们,你们们就是你们,我们们们的你们,你们就是你们的你,你们们的你们的你们的你们,你们们们不是你们的你?""你们,你们就是你们,你们不是你们,你们不是你们就不能 "我们们们们,你们们们们们我们们们们们们们们们们们们们们们们们们们们们们们们们们

STATUS	OF	NSF-FUNDED	INVENTION

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

NSF File Number: 78-55 Disclosure Date: 3/17/78 Waiver Date: Grantee Institution: Wisconsin Granter (s): Brill beccle actin avel Invention Title: Rhizobium Japonicum Mutant Strains SM31 and SM35 COURT with Increased Ability to Fix Nitrogen for Soybean Individual or Organization seeking licensees for invention: WARF U.S. Patent Application filed. Date: ____; S.N.: A patent application was not filed. (see back of this page) 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? yes Abstract - March 1977 (Annual Mtg. Am. Soc. for Microbi-) If so: Journal title: <u>ology Crop Science</u>, V. 16, ; Date: July-Aug, 1976 pp. 519-522 ; Date of license: FIRST 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: ; Date of license: _____. SECOND LICENSEE: Total license payments to grantee before Oct. 1, 1976: \$; Oct. 1,1977 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: 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
\overline{x} U.S. Patent Application filed. Date: <u>10/3/77</u> ; S.N.: <u>839.034</u> .
U.S. Patent granted. Date:; No.:
Status of patent application if not yet granted: <u>Awaiting 1st Office Action</u> 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 No
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
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 $[x]$ U.S. Patent Application filed. Date: <u>11/13/74</u> ; S.N.: <u>523,322</u> .
U.S. Patent granted. Date:; No.:; <u>3,962,586</u>
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.

STATUS OF NSF-FUNDED INVENTION	APPROVAL EXPIRES: April 30, 1981
NSF File Number: 78-22 Disclosure Date: 1/3/78 Waive	r Date:
Grantee Institution: Wisconsin Inventor(s): Mist	
Invention Title: Time Dependent Subtraction Imaging - Mask	Mode
Individual or Organization seeking licensees for inventio WARF \overline{X} U.S. Patent Application filed. Date: <u>5/16/78</u> ; S.N.	
U.S. Patent granted. Date:; No.:;	
Status of patent application if not yet granted: <u>Awaiting</u> If U.S. patent has been denied or the application has bee the invention been disclosed in a publication?	n abandoned, has
If so: Journal title:; FIRST LICENSEE:; Date of lice	
Total license payments to grantee before Oct. 1, 1976: \$	
an a	
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30,	; Oct. 1, 1977 1979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe a commercial use (use back for extended comments). Date:	
SECOND LICENSEE:; Date of lice	nse:
Total license payments to grantee before Oct. 1, 1976: \$	• • • • • • • • • • • • • • • • • • •
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1,1977 979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe a commercial use (use back for extended comments). Date:	
Please provide above information for further licenses on check here: Is invention available to other license Are you still actively seeking licensees? Yes $_X$ N	
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Gran	ted Patent No.

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OMB NO. 99-R0308 **APPROVAL EXPIRES:** STATUS OF NSF-FUNDED INVENTION April 30, 1981 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.: No patent application has been filed to date. 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: _____; ; Date of license: _____. FIRST 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: ; 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.

	OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
NSF File Number: 78-29 Disclosure Date: 1/3/78 Waiver	
Grantee Institution: Wisconsin Inventor(s): Mistr	retta-Kruger-Houk
Invention Title: Time Interval Differencing-without Contras	st Agent
Individual or Organization seeking licensees for inventior WARF	12
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: <u>Awaiting</u> If U.S. patent has been denied or the application has been the invention been disclosed in a publication?	abandoned, has
If so: Journal title:; I)ate:
FIRST LICENSEE:; Date of licen	ISe:
Total license payments to grantee before Oct. 1, 1976: \$	
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30, 1	_; Oct. 1, 1977 979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe an commercial use (use back for extended comments). Date: Description:	license? ny intended;
SECOND LICENSEE:; Date of licen	se:
Total license payments to grantee before Oct. 1, 1976: \$	•
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 19	; Oct. 1,1977 79: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe an commercial use (use back for extended comments). Date: Description:	
Please provide above information for further licenses on t check here: Is invention available to other license Are you still actively seeking licensees? Yes x No	es?
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Grant	ed Patent No.

UMB NU. YY-KUJUB **APPROVAL EXPIRES:** STATUS OF NSF-FUNDED INVENTION April 30, 1981 NSF File Number: Disclosure Date: 8/4/78 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.: _____. No patent application has been filed to date. 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: \$_____ 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 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.

	APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
	NSF File Number: Disclosure Date: 8/4/78 Waiver Date:
	Grantee Institution: Wisconsin Inventor(s): Scott
-	Invention Title: Fluxon Oscillators
4 	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:; No.:
	Status of patent application if not yet granted: <u>Awaiting 1st Office Action</u> 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 Country of filing Filing date Filing No. Date Granted Patent No.

OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981 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? ; Date: _____; If so: Journal title: FIRST LICENSEE: Burroughs-Wellcome ; Date of license: 4/1/76 . 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: \$ _____. Has the invention been put into commercial use under this license? <u>no</u>. 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: \$; Oct. 1,1977 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: Description: Please provide above information for further licenses on the back, and check here: . Is invention available to other licensees? yes . Are you still actively seeking licensees? Yes x FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981 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 XX U.S. Patent Application filed. Date: _______; S.N.: _______ 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: \$ 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.

	OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
1	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
I	\overline{XX} U.S. Patent Application filed. Date: $1/5/76$; S.N.: <u>646,640</u> .
[X] U.S. Patent granted. Date: <u>9/27/77</u> ; No.: <u>4.051.157</u> .
]	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?
נ	If so: Journal title:; Date:
E	TRST LICENSEE:; Date of license:
J	Notal license payments to grantee before Oct. 1, 1976: \$
E t	Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$
] 2	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:
S	ECOND LICENSEE:; Date of license:
1	otal license payments to grantee before Oct. 1, 1976: \$
E t	Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1,1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$
	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:
c	Please provide above information for further licenses on the back, and the here: Is invention available to other licensees? The point of the seeking licensees? Yes $X = NO$
	FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

X	OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION 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 \overline{XX} U.S. Patent Application filed. Date: $9/17/75$; S.N.: <u>614,194</u> .
	U.S. Patent granted. Date: <u>11/29/77</u> ; No.: <u>4,060,708</u> .
	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 $x = No$
	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 Japan 9/17/76 111657/76
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STATUS OF NSF-FUNDED INVENTION

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

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 X U.S. Patent Application filed. Date: $4/16/75$; S.N.:68,577
TU.S. Patent granted. Date:; No.:; 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: \$
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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: \$
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 STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Brazil2/20/751380/75 - abandoned 12/2/77Canada2/21/75220,578
W. Germany2/8/75P2505392.3Great Britain2/20/7571551752/1/781487816Japan2/20/7521400/75
Canada (Div.) $2/20/78$ 297 261

APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981 Disclosure Date: 5/3/76 Waiver Date: NSF File Number: 76-132 Wisconsin Grantee Institution: Inventor(s): Walters & Coleman Invention Title: Spark Source with Regulation of Spark Magnetude by Control of Spark Timing Individual or Organization seeking licensees for invention: WARF XX U.S. Patent Application filed. Date: 3/1/76 ; S.N.: 662,891 . X 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: License in process of FIRST LICENSEE: being negotiated. ; Date of license: Total license payments to grantee before Oct. 1, 1976: \$_____. Payments from Oct. 1, 1976 to Sep. 30, 1977: \$_____

 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 x No FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No. Canada 9/9/77 286.403

OMB NO. 99-R0308

OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
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 X U.S. Patent Application filed. Date: <u>3/15/77</u> ; S.N.: <u>777,836</u> .
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: \$; 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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OMB NO. 99-R0308 **APPROVAL EXPIRES:** STATUS OF NSF-FUNDED INVENTION April 30, 1981 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: \$_____ 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

Country of filingFOREIGN PATENT STATUSCanadaFiling dateFiling No.Date GrantedPatent No.2/1/77270,802

NOTE: Invention not within scope of OMB NO. 99-R0308 NSF IPA APPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: $73-39$ Disclosure Date: $6/10/73$ Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Ferry & Kramer
Invention Title: Soft Rubbery Materials with Extremely High Damping Capabilities
Individual or Organization seeking licensees for invention:
WARF X U.S. Patent Application filed. Date: <u>2/20/73</u> ; S.N.: <u>333,957</u> .
U.S. Patent granted. Date:; No.:
Status of patent application if not yet granted: <u>abandoned $7/9/75$</u> . If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? <u>yes</u> .
If so: Journal title: <u>Journal of Polymer Science -</u> ; Date: Vol. 12, p. 2361, 1974; Vol. 13, p. 1675 & 1687, 1975 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. 2/18/74 192,808)
France 2/19/74 74.05493)
W. Germany 2/20/74 P2408152.5) all patent applications
Great Britain $2/18/74$ 7191/74) abandoned
Italy 2/20/74 48547A/74) Japan 2/20/74 20,372/1974)

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	MB NO. 99-R0308 PPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION A	pril 30, 1981
NSF File Number: 73-14 Disclosure Date: 8/16/72 Waiver	Date: NSF Determi- nation - 4/6/73
Grantee Institution: Wisconsin Inventor(s): Ray J	. King
Invention Title: Variable Traveling Wave Antennas with Elect	Scanning
Individual or Organization seeking licensees for invention:	
WARF $[x]$ U.S. Patent Application filed. Date: $9/13/73$; S.N.:	apandoned;
U.S. Patent granted. Date:; No.:	619, 410 - c-i-p of SN 397, 082 n in condition
Status of patent application if not yet granted: for allowar If U.S. patent has been denied or the application has been the invention been disclosed in a publication?	nce et al estate et al a second
If so: Journal title:; Da	ite:
FIRST LICENSEE:; Date of licens	e:
Total license payments to grantee before Oct. 1, 1976: \$	
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1977 79: \$
Has the invention been put into commercial use under this 1 If so, give date and describe briefly; if not, describe any commercial use (use back for extended comments). Date: Description:	intended
SECOND LICENSEE:; Date of licens	e:
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, 197	; Oct. 1,1977 9: \$
Has the invention been put into commercial use under this 1 If so, give date and describe briefly; if not, describe any commercial use (use back for extended comments). Date: Description:	
Please provide above information for further licenses on the check here: Is invention available to other licensees Are you still actively seeking licensees? Yes No	
FOREIGN PATENT STATUS <u>Country of filing</u> <u>Filing date</u> <u>Filing No.</u> <u>Date Grante</u> Canada <u>9/16/74</u> 209,260 <u>3/15/77</u>	d <u>Patent No.</u> 1006974

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NOTE: Invention not within scope of NSF IPA STATUS OF NSF-FUNDED INVENTION OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
NSF File Number: 69-42 Disclosure Date: Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Larsen & Gil-Arnao
Invention Title: Process of Separation of Hafnium from Zirconium
Individual or Organization seeking licensees for invention:
WARF X U.S. Patent Application filed. Date: $2/7/69$; S.N.: _797,683
X U.S. Patent granted. Date: <u>5/22/73;</u> No.: <u>3.734.689</u> .
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? YesNO_ $_X$.
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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	NOTE: Invention not within scope of NSF IPA STATUS OF NSF-FUNDED INVENTION April 30, 1981
	NSF File Number: 75-58 Disclosure Date: 7/71 Waiver Date:
	Grantee Institution: Wisconsin Inventor(s): Arthur S. Lodge
	Invention Title: Flow Meter for Non-Newtonian Liquids
	Individual or Organization seeking licensees for invention:
•	한 이상에 가려지 않는 것은 것은 것은 것을 하는 것은 것은 것을 것 같아요. 것은 것은 것은 것은 것은 것은 것을 했다.
	X U.S. Patent Application filed. Date:; S.N.:
	XX U.S. Patent granted. Date: <u>12/11/73</u> ; No.: <u>3,777,549</u> . Patent reassigned to Lodge - 2/26/75 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 STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Canada7/27/72148,142)Germany7/25/72P2236572.6) Patent applications reassignedJapan7/28/7275,804/72) to Lodge - 2/26/75

NOTE: Invention not within scope of OMB NO. 99-R0308 NSF IPA APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: 74-17 Disclosure Date: Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Vanderheiden, Lamers et al
Invention Title: Auto-Monitoring Commercial Devices for Handicapped Persons
Individual or Organization seeking licensees for invention: Invention dropped by WARF $9/1/72$; WARF did not file patent application.
X U.S. Patent Application filed. Date: 4/73 ; S.N.: 353,462
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
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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	NOTE: Invention not within scope of NSF IPAOMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981STATUS OF NSF-FUNDED INVENTIONApril 30, 1981
· · .	NSF File Number: 70-10 Disclosure Date: 9/18/69 Waiver Date; NSF Determi- nation - 5/8/70
	Grantee Institution: Wisconsin Inventor(s): Walters & Brents Bruhns
1.1	Invention Title: An Electronically-Controlled Current Injection Spark Source for Basic and Applied Emission Spectrometry Individual or Organization seeking licensees for invention:
	WARF X U.S. Patent Application filed. Date: $2/4/70$; S.N.: 8,462.
	\bar{x} U.S. Patent granted. Date: <u>4/4/72</u> ; No.: <u>3,653,766</u> .
	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:
1947	FIRST LICENSEE: Jarrell-Ash ; Date of license: 7/1/71.
	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: \$
	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:
- i (Please provide above information for further licenses on the back, and check here: Is invention available to other licensees? \underline{x} . Are you still actively seeking licensees? Yes No
	FOREIGN PATENT STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Canada $12/3/70$ $099,785$ $6/19/73$ $928,772$ Canada (Div.) $11/23/72$ $157,302$ $10/2/73$ $934,811$
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NOTE: Invention not within scope of NSF IPA OMB NO. 99-R0308 APPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: $72-50$ Disclosure Date: $3/20/72$ Waiver Date: NSF Determination - $8/11/72$
Grantee Institution: U. of Wisconsin Inventor(s): Walters, Goldstein & Eaton
Invention Title: Method & Apparatus for Spark Spectroscopy
Individual or Organization seeking licensees for invention:
WARF U.S. Patent Application filed. Date: $2/4/72$; S.N.:223,605
X U.S. Patent granted. Date: $\frac{6}{11/74}$; No.: 3,815,995.
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 \underline{x} No
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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

STATUS OF NSF-FUNDED INVENTION

NSF File Number: 74-62 Disclosure Date: 3/26/74 Waiver Date: Grantee Institution: Wisconsin Cluby Inventor(s): Anderson et al Invention Title: Molecular Nitrogen Laser Varia Varia Citta rucitavri town De intrae wolf Der Y. Individual or Organization seeking licensees for invention: WARF [v] U.S. Patent Application filed. Date: 5/20/75 ; S.N.: 579.268 [x] 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: \$____ 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: \$; Oct. 1,1977 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: 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.

OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: 76-142 Disclosure Date: 5/18/76 Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Blaedel and Jenkins
Invention Title: A Reagentless Lactate Electrode
Individual or Organization seeking licensees for invention:
WARF U.S. Patent Application filed. Date: <u>12/13/76</u> ; S.N.: <u>752,421</u> .
U.S. Patent granted. Date: ; No.: Under Final Rejection; interview
Status of patent application if not yet granted: <u>with Examiner to be held</u> in Aug. 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.
Germany 12/27/76 P2659071.6

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

STATUS OF NSF-FUNDED INVENTION MSF File Number: 78-55 Disclosure Date: 3/17/78 Waiver Date: Grantee Institution: Wisconsin Condition Cinventor(s): Brill MacLo reiscovil Invention Title: Rhizobium Japonicum Mutant Strains SM31 and SM35 with Increased Ability to Fix Nitrogen for Soybean Individual or Organization seeking licensees for invention: WARF U.S. Patent Application filed. Date: ; S.N.: A patent application was not filed. (see back of this page) 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? yes_____. Abstract - March 1977 (Annual Mtg. Am. Soc. for Microbi+ If so: Journal title: ology Crop Science, V. 16, ; Date: July-Aug, 1976 pp. 519-522 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: ; 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.

<pre>NSF File Number: 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 [x] U.S. Patent Application filed. Date: 10/3/77 ; S.N.: 839,034] 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 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?</pre>
<pre>Invention Title: Digital Data Enciphering and Deciphering Circuit and Method Individual or Organization seeking licensees for invention:</pre>
Individual or Organization seeking licensees for invention: WARF WARF U.S. Patent Application filed. Date: 10/3/77 ; S.N.: 839,034 U.S. Patent granted. Date:; No.: Status of patent granted. Date:; No.:
WARF [x] U.S. Patent Application filed. Date: 10/3/77 ; S.N.: 839,034 [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.
[x] U.S. Patent Application filed. Date: 10/3/77 ; S.N.: 839,034 [] 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: \$
<pre>[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: \$</pre>
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: Total license payments to grantee before Oct. 1, 1976: \$ Payments from Oct. 1, 1976 to Sep. 30, 1977: \$
If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication?
FIRST LICENSEE: ; Date of license: Total license payments to grantee before Oct. 1, 1976: \$ Payments from Oct. 1, 1976 to Sep. 30, 1977: \$ rots from Oct. 1, 1976 to Sep. 30, 1977: \$ content of the sep. 30, 1978: \$ content of the sep. 30, 1978: \$ content of the sep. 30, 1978: \$
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: \$
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$
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.

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STATUS OF NSF-FUNDED INVENTION	OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
NSF File Number: 74-52 Disclosure Date: 2/22/74 Waive	r Date:
Grantee Institution: Wisconsin Inventor(s): May	nugh & Fullerton
Invention Title: Sensitized Thermoluminiscent Phosphor & M	Method
Individual or Organization seeking licensees for inventio	n:
WARF U.S. Patent Application filed. Date: <u>11/13/74</u> ; S.N.	• <u>-523,322</u> •
[x] U.S. Patent granted. Date:; No.:; No.:	••
Status of patent application if not yet granted: If U.S. patent has been denied or the application has been the invention been disclosed in a publication?	n abandoned, has
If so: Journal title:;	Date:
FIRST LICENSEE:; Date of lice	nse:
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,	; Oct. 1, 1977 1979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe a commercial use (use back for extended comments). Date: Description:	ny intended
SECOND LICENSEE:; Date of lice	nse:
Total license payments to grantee before Oct. 1, 1976: \$	•
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1	; Oct. 1,1977 979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe a commercial use (use back for extended comments). Date:	
Please provide above information for further licenses on check here: Is invention available to other license Are you still actively seeking licensees? Yes $_{X}$ N FOREIGN PATENT STATUS	ees? o
Country of filing Filing date Filing No. Date Gran	LEU FACENC NO.

	STATUS OF NSF-FUNDED INVENTION	OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
	NSF File Number: 78-22 Disclosure Date: 1/3/78 Waive	r Date:
	Grantee Institution: Wisconsin Inventor(s): Mist	retta
	Invention Title: Time Dependent Subtraction Imaging - Mask	Mode
	Individual or Organization seeking licensees for invention	n:
	WARF	
	X U.S. Patent Application filed. Date: 5/16/78; S.N.	: 906,686 .
	U.S. Patent granted. Date:; No.:;	
	Status of patent application if not yet granted: <u>Awaiting</u> If U.S. patent has been denied or the application has been the invention been disclosed in a publication?	<u>1st Office Action</u> n abandoned, has
	If so: Journal title:;]	Date:
	FIRST LICENSEE:; Date of licen	
	Total license payments to grantee before Oct. 1, 1976: \$	••••••••••••••••••••••••••••••••••••••
	Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30,	_; Oct. 1, 1977 1979: \$
	Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe and commercial use (use back for extended comments). Date:	license? ny intended ;
	SECOND LICENSEE:; Date of licen	nse:
	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, 19	; Oct. 1,1977 979: \$
	Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe and commercial use (use back for extended comments). Date:	
	Please provide above information for further licenses on check here: Is invention available to other license Are you still actively seeking licensees? Yes_ X NK	ees?
	FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Grant	ted Patent No.
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NOTE: This is a duplicate of your NSF File No. 78-22 STATUS OF NSF-FUNDED INVENTION	OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
1/3/78 NSF File Number: 78-59 Disclosure Date: 5/24/78 Waiv	er Date:
Grantee Institution: Wisconsin Inventor(s): Mis	tretta et al
Invention Title: Time Dependent Subtraction Imaging-Mask	Mode
Individual or Organization seeking licensees for inventi WARF	on:
\overline{X} U.S. Patent Application filed. Date: $5/16/78$; S.N	.: 906,686
U.S. Patent granted. Date: ; No.:	•
Status of patent application if not yet granted: <u>Awaitin</u> If U.S. patent has been denied or the application has be the invention been disclosed in a publication?	g <u>1st Office Action</u> en abandoned, has
If so: Journal title:;	Date:
FIRST LICENSEE:; Date of lic	ense:
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,	; Oct. 1, 1977 1979: \$
Has the invention been put into commercial use under thi If so, give date and describe briefly; if not, describe commercial use (use back for extended comments). Date: Description:	any intended
SECOND LICENSEE:; Date of lice	ense:
Total license payments to grantee before Oct. 1, 1976: \$	
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30,	; Oct. 1,1977 1979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe commercial use (use back for extended comments). Date: Description:	any intended
Please provide above information for further licenses on check here: Is invention available to other license Are you still actively seeking licensees? Yes x	sees?
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Gran	nted Patent No.

and a second	
	OMB NO. 99-R0308 APPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION	April 30, 1981
NSF File Number: 78-30 Disclosure Date: 1/3/78 Waive	r Date:
Grantee Institution: Wisconsin Inventor(s): Mis	tretta
Invention Title: Tomographic Time Interval Differencing	
Individual or Organization seeking licensees for invention WARF	n:
<pre>U.S. Patent Application filed. Date: ; S.N. No patent application has been filed to date. U.S. Patent granted. Date: ; No.:</pre>	•
Status of patent application if not yet granted: If U.S. patent has been denied or the application has been the invention been disclosed in a publication?	n abandoned, has
If so: Journal title:;	Date:
FIRST LICENSEE:; Date of lice	nse:
Total license payments to grantee before Oct. 1, 1976: \$	[•]
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30,	_; Oct. 1, 1977 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 licen	nse:
Total license payments to grantee before Oct. 1, 1976: \$	
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 19	; Oct. 1,1977 979: \$
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe as commercial use (use back for extended comments). Date:	
Please provide above information for further licenses on the check here: Is invention available to other license Are you still actively seeking licensees? Yes No.	ees?
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Grant	ted Patent No.

STATUS OF NSF-FUNDED INVENTION	OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
NSF File Number: 78-29 Disclosure Date: 1/3/78 Waiv	ver Date:
Grantee Institution: Wisconsin Inventor(s): Mis	stretta-Kruger-Houk
Invention Title: Time Interval Differencing-without Contr	cast Agent
Individual or Organization seeking licensees for inventi WARF	.on:
U.S. Patent Application filed. Date: <u>5/16/78</u> ; S.N	··: <u>906, 631</u> .
U.S. Patent granted. Date:; No.:;	••••••••••••••••••••••••••••••••••••••
Status of patent application if not yet granted: <u>Awaitin</u> If U.S. patent has been denied or the application has be the invention been disclosed in a publication?	
If so: Journal title:;	Date:
FIRST LICENSEE:; Date of lic	ense:
 Total license payments to grantee before Oct. 1, 1976: \$	•
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30,	; Oct. 1, 1977 1979: \$
Has the invention been put into commercial use under thi If so, give date and describe briefly; if not, describe commercial use (use back for extended comments). Date: Description:	any intended
SECOND LICENSEE:; Date of lice	ense:
Total license payments to grantee before Oct. 1, 1976: \$	·•
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30,	; Oct. 1,1977 1979: \$
Has the invention been put into commercial use under thi If so, give date and describe briefly; if not, describe commercial use (use back for extended comments). Date: Description:	
Please provide above information for further licenses on check here: Is invention available to other licen Are you still actively seeking licensees? Yes	
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Gra	inted Patent No.

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

STATUS OF NSF-FUNDED INVENTION

NSF File Number: Disclosure Date: 8/4/78 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.: _____; No patent application has been filed to date. 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: \$

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: \$

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 INVENTIO	APPROVAL EXPIRES: N April 30, 1981
NSF File Number:	Disclosure	e Date: 8/4/78	Waiver Date:
Grantee Institution: Invention Title: F		Inventor(s)	: Scott
Individual or Organi:			wantion.
WARI			WEIKLION.
U.S. Patent Applie		ate: 7/12/78	; S.N.: 923,955 .
U.S. Patent grante			
Status of patent app	lication if not een denied or th	yet granted: <u>Av</u> le application r	vaiting 1st Office Action as been abandoned, has
If so: Journal title	e:		; Date:
FIRST LICENSEE:		; Date c	f license:
Total license payment	· · · · · · · · · · · · · · · · · · ·		
Payments from Oct. 1, to Sep. 30, 1978: \$, 1976 to Sep. 3 ; Oct.	0, 1977: \$ 1, 1978 to Sep.	; Oct. 1, 1977 30, 1979: \$
Has the invention bee If so, give date and commercial use (use h Description: SECOND LICENSEE;	describe briefly	y; if not, desc d comments). D	ribe any intended
Total license payment	ts to grantee be	fore Oct. 1, 19	76: \$
Payments from Oct. 1, to Sep. 30, 1978: \$, 1976 to Sep. 3	0, 1977: \$ 1, 1978 to Sep.	; Oct. 1,1977 30, 1979: \$
Has the invention bee If so, give date and commercial use (use b Description:	describe briefly	y; if not, desc	ribe any intended
Please provide above check here: . Is	s invention avail	lable to other	licensees?
Are you still activel	ly seeking licens	sees? Yes <u>x</u>	•

STATUS OF NSF-FUNDED INVENTION

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

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. 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: \$ ____. 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: ; 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? yes . Are you still actively seeking licensees? Yes x FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
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
X U.S. Patent Application filed. Date:; S.N.:
x U.S. Patent granted. Date: <u>2/8/77</u> ; No.: <u>4.007,211</u> .
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 x No

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OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
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
XX U.S. Patent Application filed. Date: 1/5/76; S.N.: 646,640.
X U.S. Patent granted. Date: <u>9/27/77</u> ; No.: <u>4.051.157</u> .
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_x No
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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OMB NO. 99-R0308 APPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION 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 \overline{XX} U.S. Patent Application filed. Date: $9/17/75$; S.N.: <u>614,194</u> .
U.S. Patent granted. Date: <u>11/29/77</u> ; No.: <u>4,060,708</u> .
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_ 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
Japan 9/17/76 111657/76
a defendence a la construcción de la construcción de la construcción de la construcción de la construcción de Característica de la construcción de

STATUS OF NSF-FUNDED INVENTION

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

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.: <u>568,577</u> .
[x] U.S. Patent granted. Date:; No.:; <u>3,973,167</u>
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 <u>x</u> No
FOREIGN PATENT STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Brazil2/20/751380/75 - abandoned 12/2/77Canada2/21/75220,578W. Germany2/8/75P2505392.3
Great Britain 2/20/75 7155175 2/1/78 1487816
Japan 2/20/75 21400/75
Canada (Div.) 2/20/78 297,261

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

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 Magnetude by Control of Spark Timing_ Individual or Organization seeking licensees for invention: WARF XX U.S. Patent Application filed. Date: 3/1/76 ; S.N.: 662.891 . X 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? . License in process of If so: Journal title: FIRST LICENSEE: being negotiated. ; 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 Country of filing Filing date Filing No. Date Granted Patent No. 9/9/77 286,403 Canada

	OMB NO. 99-R0308 APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
	NSF File Number: 76-122 Disclosure Date: 3/15/76 Waiver Date:
	Grantee Institution: Wisconsin Inventor(s): West, Beyer, Komatsu
н <u>н</u>	Invention Title: Quinocyclopropene Derivatives
•	
	Individual or Organization seeking licensees for invention:
	WARF [X] U.S. Patent Application filed. Date:; S.N.:
	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: \$; 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

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OMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981 STATUS OF NSF-FUNDED INVENTION 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: _____; ; Date of license: FIRST 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: 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 2/1/77270.802

NOTE: Invention not within scope of NSF IPAOMB NO. 99-R0308 APPROVAL EXPIRES:
STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: $73-39$ Disclosure Date: $6/10/73$ Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Ferry & Kramer
Invention Title: Soft Rubbery Materials with Extremely High Damping Capabilities
Individual or Organization seeking licensees for invention:
WARF \overline{X} U.S. Patent Application filed. Date: $2/20/73$; S.N.: 333,957.
U.S. Patent granted. Date:; No.:
Status of patent application if not yet granted: <u>abandoned $7/9/75$</u> . If U.S. patent has been denied or the application has been abandoned, has the invention been disclosed in a publication? <u>yes</u> .
If so: Journal title: <u>Journal of Polymer Science -</u> ; Date: Vol. 12, p. 2361, 1974; Vol. 13, p. 1675 & 1687, 1975 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 STATUSCountry of filing CanadaFiling date 2/18/74Filing No. 192,808Date Granted >)Patent No.France2/19/7474.05493)W. Germany2/20/74P2408152.5) all patent applicationsGreat Britain2/18/747191/74) abandoned
Great bi Italii $2/18/74$ $7191/74$) abandonedItaly $2/20/74$ $48547A/74$)Japan $2/20/74$ $20,372/1974$

•	NOTE: Invention not within scope of OMB NO. 99-R0308 NSF IPA APPROVAL EXPIRES:	
	STATUS OF NSF-FUNDED INVENTION April 30, 1981	
	NSF File Number: 73-14 Disclosure Date: 8/16/72 Waiver Date: NSF Determi- nation - 4/6/73	
• •	Grantee Institution: Wisconsin Inventor(s): Ray J. King	
÷.	Invention Title: Variable Traveling Wave Antennas with Electronically Controllable	: : : : : : :
÷,	Individual or Organization seeking licensees for invention:	
	WARF \boxed{X} U.S. Patent Application filed. Date: $9/13/73$; S.N.: $397,082$ - abandoned;	
	U.S. Patent granted. Date:; No.: 619,410 - c-i-p of SN 397,082	•
	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:;	н н Да 1
	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: \$	1 A.
	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 STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Canada9/16/74209,2603/15/771006974	

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<pre>NSF File Number: 69-42 Disclosure Date: Waiver Date: Grantee Institution: Wisconsin Inventor(S): Larsen & G11-Arnao Invention Title: Process of Separation of Hafnium from Zirconium Individual or Organization seeking licensees for invention: WARF [X] U.S. Patent Application filed. Date: 2/7/69 ; S.N.: _797,683 [X] U.S. Patent granted. Date: 5/22/73; No.: 3,734.689 Status of patent application if not yet granted: If U.S. patent has been denied or the application has been abandoned, h the invention been disclosed in a publication? If so: Journal title:; Date: Total license payments to grantee before Oct. 1, 1976; \$ Payments from Oct. 1, 1976 to Sep. 30, 1977; \$; Oct. 1, 19 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:; Date of license:; Date of license:; Description: SECOND LICENSEE:; Date of license:; Total license payments to grantee before Oct. 1, 1976; \$; Date of license:; Date of license:; Date of license:; Date of license:</pre>		NOTE: Invention not within scope of OMB NO. 99-R030 NSF IPA OMB NO. 99-R030
Grantee Institution: Wisconsin Inventor(s): Larsen & Gil-Arnao Invention Title: Process of Separation of Hafnium from Zirconium Individual or Organization seeking licensees for invention: WARF [X] U.S. Patent Application filed. Date: 2/7/69 ; S.N.: 207,683 [X] U.S. Patent application filed. Date: 2/7/69 ; S.N.: 207,683 [X] U.S. Patent application if not yet granted: If U.S. patent application if not yet granted: If U.S. patent application if not yet granted: If so: Journal title:	· "	STATUS OF NSF-FUNDED INVENTION April 30, 1981
Invention Title: Process of Separation of Hafnium from Zirconium Individual or Organization seeking licensees for invention: WARF [X] U.S. Patent Application filed. Date: 2/7/69 ; S.N.: _207,683 [X] U.S. Patent granted. Date: 5/22/73; No.: 3,734,689 Status of patent application if not yet granted: If U.S. patent has been denied or the application has been abandoned, h the invention been disclosed in a publication?; Date:; Oct. 1, 1976 to Sep. 30, 1977; \$; Oct. 1, 1976 to Sep. 30, 1979; \$; Oct. 1, 1976 to Sep. 30, 1979; \$; Date:; Date: _	· · · ·	NSF File Number: 69-42 Disclosure Date: Waiver Date:
Individual or Organization seeking licensees for invention: WARF [X] U.S. Patent Application filed. Date: 2/7/69 ; S.N.: 797,683 [X] U.S. Patent granted. Date: 5/22/73; No.: 3,734.689 Status of patent application if not yet granted: If U.S. patent has been denied or the application has been abandoned, h the invention been disclosed in a publication? If so: Journal title:; Date:; 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, 19 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:; Oct. 1, 1978 to Sep. 30, 1979; \$; Has the invention been put into commercial use under this license? Total license payments to grantee before Oct. 1, 1976; \$; Payments from Oct. 1, 1976 to Sep. 30, 1977; \$; Oct. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Payments from Oct. 1, 1976 to Sep. 30, 1977; \$; Oct. 1, 197 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 licenses?		Grantee Institution: Wisconsin Inventor(s): Larsen & Gil-Arnao
<pre>WARF [X] U.S. Patent Application filed. Date: _2/7/69 ; S.N.: _797,683 [X] U.S. Patent granted. Date: _5/22/73; No.: 3,734.689 Status of patent application if not yet granted: If U.S. patent has been denied or the application has been abandoned, h the invention been disclosed in a publication? If so: Journal title:; Date:; Date:; PIRST LICENSEE:; Date of license: Total license payments to grantee before Oct. 1, 1976; \$ 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:; Oct. 1, 1978 to Sep. 30, 1979; \$ Has the invention been put into commercial use under this license? Total license payments to grantee before Oct. 1, 1976; \$; Description: SECOND LICENSEE:; Date of license:; Date of license:; Date is under this license?; Dot. 1, 1978 to Sep. 30, 1979; \$; Oct. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Dot. 1, 197 to Sep. 30, 1978; \$; Oct. 1, 1978 to Sep. 30, 1979; \$; Description: Please provide above information for further licenses on the back, and check he</pre>		Invention Title: Process of Separation of Hafnium from Zirconium
<pre>[X] U.S. Patent Application filed. Date: 2/7/69 ; S.N.:</pre>		Individual or Organization seeking licensees for invention:
<pre>Status of patent application if not yet granted: If U.S. patent has been denied or the application has been abandoned, h the invention been disclosed in a publication? If so: Journal title:; Date:; Date:; Parent from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 19 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:; Oct. 1, 1978 to Sep. 30, 1979: \$ Has the invention been put into commercial use under this license? Total license payments to grantee before Oct. 1, 1976: \$; Description: SECOND LICENSEE:; Date of license:; Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 197 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$; Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 197 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$; Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 197 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 licenses?</pre>		WARF X U.S. Patent Application filed. Date: $2/7/69$; S.N.: <u>797,683</u>
If U.S. patent has been denied or the application has been abandoned, h the invention been disclosed in a publication?		X U.S. Patent granted. Date: <u>5/22/73;</u> No.: <u>3,734.689</u> .
<pre>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, 19 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. 1,19 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 licensee?</pre>		If U.S. patent has been denied or the application has been abandoned, has
Total license payments to grantee before Oct. 1, 1976: \$ Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 19 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. 1,197 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: 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 licenses?		If so: Journal title:; Date:;
<pre>Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 19 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$</pre>		FIRST LICENSEE:; Date of license:;
<pre>to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$</pre>	· · ·	Total license payments to grantee before Oct. 1, 1976: \$
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:; Date of license:; Total license payments to grantee before Oct. 1, 1976: \$; Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1,19 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?		Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$
Total license payments to grantee before Oct. 1, 1976: \$ Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1,197 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?		commercial use (use back for extended comments). Date:;
<pre>Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1,19 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?</pre>		SECOND LICENSEE:; Date of license:
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?		Total license payments to grantee before Oct. 1, 1976: \$
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?		Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1,1977 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1979: \$
check here: Is invention available to other licensees?		If so, give date and describe briefly; if not, describe any intended commercial use (use back for extended comments). Date:;
		check here: Is invention available to other licensees?
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No		FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Granted Patent No.

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	NOTE: Invention not within scope of NSF IPAOMB NO. 99-R0308 APPROVAL EXPIRES: April 30, 1981
	NSF File Number: 75-58 Disclosure Date: 7/71 Waiver Date:
	Grantee Institution: Wisconsin Inventor(s): Arthur S. Lodge
	Invention Title: Flow Meter for Non-Newtonian Liquids
	Individual or Organization seeking licensees for invention:
	X U.S. Patent Application filed. Date:; S.N.: 167,254 .
	<pre>XX U.S. Patent granted. Date: <u>12/11/73</u>; No.: <u>3,777,549</u>. Patent reassigned to Lodge - 2/26/75 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?</pre>
	If so: Journal title:; Date:
	FIRST LICENSEE:; Date of license:
	Total license payments to grantee before Oct. 1, 1976: \$
han series and States and States An the Andreas An the Andreas and States and	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 STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Canada7/27/72148,142)Germany7/25/72P2236572.6)Patent applications reassignedJapan7/28/7275,804/72) to Lodge - 2/26/75

 NOTE: Invention not within scope of OMB NO. 99-R0308
NSF IPA APPROVAL EXPIRES: STATUS OF NSF-FUNDED INVENTION April 30, 1981
NSF File Number: 74-17 Disclosure Date: Waiver Date:
Grantee Institution: Wisconsin Inventor(s): Vanderheiden, Lamers et al
Invention Title: Auto-Monitoring Commercial Devices for Handicapped Persons
Individual or Organization seeking licensees for invention: Invention dropped by WARF 9/1/72; WARF did not file patent application.
X U.S. Patent Application filed. Date: 4/73 ; S.N.: 353,462.
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.

	NOTE: Invention not within scope of OMB NO. 99-R0308 NSF IPA APPROVAL EXPIRES:		
	STATUS OF NSF-FUNDED INVENTION April 30, 1981		
•	NSF File Number: 70-10 Disclosure Date: 9/18/69 Waiver Date: NSF Determi- nation - 5/8/70		
	Grantee Institution: Wisconsin Inventor(s): Walters & Brendits Bruhns		
	Invention Title: An Electronically-Controlled Current Injection Spark Source for Basic and Applied Emission Spectrometry Individual or Organization seeking licensees for invention:		
	WARF X U.S. Patent Application filed. Date: 2/4/70 ; S.N.: 8,462.		
	X U.S. Patent granted. Date: <u>4/4/72</u> ; No.: <u>3,653,766</u> .		
	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: <u>Jarrell-Ash</u> ; Date of license: <u>7/1/71</u> .		
	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: \$		
	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? \underline{X} . Are you still actively seeking licensees? Yes \underline{X} No		
	FOREIGN PATENT STATUSCountry of filingFiling dateFiling No.Date GrantedPatent No.Canada $12/3/70$ $099,785$ $6/19/73$ $928,772$ Canada (Div.) $11/23/72$ $157,302$ $10/2/73$ $934,811$		
1			

NOTE: Invention not within scope of NSF IPA	OMB NO. 99-R0308 APPROVAL EXPIRES:	
STATUS OF NSF-FUNDED INVENTION	April 30, 1981	
NSF File Number: $72-50$ Disclosure Date: $3/20/72$ Waive	er Date: NSF Determi-	
nation - 8/11/72 Grantee Institution: U. of Wisconsin Inventor(s): Walters, Goldstein & Eaton		
Invention Title: Method & Apparatus for Spark Spectroscopy		
Individual or Organization seeking licensees for invention	n:	
WARF U.S. Patent Application filed. Date: $2/4/72$; S.N.	:223,605•	
X U.S. Patent granted. Date: 6/11/74 ; No.: 3,815,9	95•	
Status of patent application if not yet granted: If U.S. patent has been denied or the application has bee the invention been disclosed in a publication?		
If so: Journal title:;	Date:	
FIRST LICENSEE:; Date of lice	1	
Total license payments to grantee before Oct. 1, 1976: \$_	••••••	
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30,	_; Oct. 1, 1977 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 lice	nse:	
Total license payments to grantee before Oct. 1, 1976: \$		
Payments from Oct. 1, 1976 to Sep. 30, 1977: \$; Oct. 1, 1978 to Sep. 30, 1978: \$; Oct. 1, 1978 to Sep. 30, 1	; Oct. 1,1977 979: \$	
Has the invention been put into commercial use under this If so, give date and describe briefly; if not, describe a commercial use (use back for extended comments). Date:		
Please provide above information for further licenses on check here: Is invention available to other licens. Are you still actively seeking licensees? Yes x N		
FOREIGN PATENT STATUS Country of filing Filing date Filing No. Date Gran	ted Patent No.	