Form <b>PTO-1595</b>			U.S. DEPARTMENT OF COMME
(Rev. 03/01) OMB No. 0651-0027 (exp. 5/31/2002)	101955	405	U.S. Patent and Trademark C
Tab settings $\Rightarrow \Rightarrow \Rightarrow$	V V	<b>V V</b>	<u> </u>
	f Patents and Trademarks: P	lease record the attached	original documents or copy thereof.
1. Name of conveying party(ies):		2. Name and address	s of receiving party(ies)
Bruce F. Monzyk		Name: <u>Battel</u>	le Memorial Institute
Anna Lee Y. Tonkovich Yong Wang			
David P. VanderWiel			
Additional name(s) of conveying party(ies) a	ittached? 🕰 Yes 🛄 No		JAN T. 300
3. Nature of conveyance:			
·	Merger		
	-	Street Address: <u>505 King Avenue</u>	
Security Agreement	Change of Name		
Qther			
		City: <u>Columbus</u>	State: <u>0hi0</u> Zip: <u>432(</u>
Execution Date:		Additional name(s) & s	uddress(es) attached? 🖵 Yes 😰
the literation of a potential	numbor(s):		
4. Application number(s) or patent	number(s).		ate of the application is:
If this document is being filed tog	gether with a new applic		
A. Patent Application No.(s)		B. Patent No.(s)	
09/845,778			
	Additional numbers atta	ached? 📮 Yes 🍒 No	
5. Name and address of party to w			plications and patents involved
concerning document should be	mailed:		- 40 - 00
		7 Total fee (3/ CFR	3.41)\$
Name:_Patent_Administra	tor		3.41)\$ <u>40.00</u>
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Internal Address: Street Address:505 King // City:ColumbusState: 9. Statement and signature. To the best of my knowledge a is a true copy of the original doc William B. Richards Name of Person Signi	Avenue OZip: 43201-269 DO NOT US and belief, the foregoing bocument. S ing	Enclosed     Authorized to     PT0-2038     S. Deposit account i     (Attach duplicate copies     E THIS SPACE     information is true an     Signature     Signature	be charged to credit card is attached. humber: y of this page if paying by deposit acco d correct and any attached cop <u><math>1(\cdot 2 \cdot 2 - 0 \cdot 1)</math></u> Date d documents: 18
Internal Address: Street Address:505 King / City:_ColumbusState:_Ohi 9. Statement and signature. To the best of my knowledge a is a true copy of the original do <u>William B. Richards</u> Name of Person Signi	Avenue O	Enclosed     Authorized to     PT0-2038     Authorized to     Authorized to     PT0-2038     Authorized to     Authorized to     Authorized to     PT0-2038     Authorized to     Author	be charged to credit card is attached. humber: y of this page if paying by deposit accord d correct and any attached cop $\frac{1(\cdot 2 \ 2 - 0)}{Date}$ d documents: [8]
Internal Address: Street Address:505 King // City:ColumbusState: 9. Statement and signature. To the best of my knowledge a is a true copy of the original doc William B. Richards Name of Person Signi	Avenue OZip: <u>43201-269</u> DO NOT US and belief, the foregoing boument. S ing humber of pages including co all documents to be recorded w Commissioner of Patents Washing	Enclosed     Authorized to     PT0-2038     S. Deposit account i     (Attach duplicate copies     E THIS SPACE     information is true an     Signature     Signature	be charged to credit card is attached. humber: y of this page if paying by deposit accord d correct and any attached cop $\frac{1(\cdot 2 \ 2 - 0)}{Date}$ d documents: [8]

# RECORDATION FORM COVER SHEET PATENT ONLY

# 09/845,778

# 1. Continuation - Additional names of conveying parties

Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey

3. Continuation – Nature of conveyance:

Inventor	<b>Execution Date</b>
Anna Lee Y. Tonkovich	Nov. 7, 2001
Bruce F. Monzyk	Oct. 26, 2001
Yong Wang	Nov. 1, 2001
David P. VanderWiel	Nov. 2, 2001
Steven T. Perry	Nov. 7, 2001
Sean P. Fitzgerald	Nov. 7, 2001
Wayne W. Simmons	Nov. 1, 2001
Jeffrey S. McDaniel	Nov. 1, 2001
Albert E. Weller, Jr.	Nov. 5, 2001
Chad M. Cucksey	Oct. 26, 2001

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to Battelle Memorial Institute

WHEREAS we, Bruce F. Monzyk, of Delaware, in the County of Union, and State of Ohio, Anna Lee Y. Tonkovich, of Marysville, in the County of Union, and State of Ohio, Yong Wang, of Richland, in the County of Benton, and State of Washington, David P. VanderWiel, of Columbus, in the County of Franklin, and State of Ohio, Steven T. Perry, of Galloway, in the County of Franklin, and State of Ohio, Sean P. Fitzgerald, of Columbus, in the county of Franklin, and State of Ohio, Wayne W. Simmons, of Dublin, in the county of Delaware, and State of Ohio, Jeffrey S. McDaniel, of Columbus, in the county of Franklin, and State of Ohio, Albert E. Weller, Jr., of Columbus, in the county of Franklin, and State of Ohio, and Chad M. Cucksey, of Columbus, in the county of Franklin, and State of Ohio have made certain inventions in APPARATUS AND METHODS FOR HYDROGEN SEPARATION/PURIFICATION UTILIZING RAPIDLY CYCLED THERMAL SWING SORPTION, the specification of which was filed on April 30, 2001 as application serial no. 09/845,778; and

WHEREAS, Battelle Memorial Institute, a corporation of Ohio, having a place of business at 505 King Avenue, Columbus, Ohio, herein called "ASSIGNEE", is desirous of acquiring our entire right, title, and interest in said invention and application therefor, and in any patent or patents to be obtained therefor;

NOW, THEREFORE, To All Whom It May Concern, be it known that, for and in consideration of the sum of One Dollar (\$1.00), and other good and valuable considerations, the receipt of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto the said Assignee, our entire right, title, and interest in and to the invention shown, described, or claimed therein, and the full and exclusive right and title to the said application executed by us, preparatory to obtaining Letters Patent of the United States therefor; and in and to any extensions, reissues, divisions, or renewals thereof; and we do hereby authorize and request the Commissioner of Patents or other proper Officer, to issue such Letters Patent, or any of them, to the said Assignee, as the assignee of our entire right, title, and interest in and to the same for the sole use and behoof of the said Assignee, and its successors or assigns.

And we further covenant and agree that we will, at the request and expense of the said Assignee, execute such other and further assurances of title as may be necessary or proper to fully convey the interest herein sought to be conveyed; that we will, at the request and expense of the said Assignee, execute such application papers as may be desired by the said Assignee for the filing of any division or renewal of the application herein conveyed, or for the reissues or extensions of any

Page 1 of 11

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to **Battelle Memorial Institute** 

Letters Patent that may be granted upon said application, and will execute such Supplemental Oaths and Preliminary Statements, or other papers as desired by the said Assignee.

And we further assign unto the said Assignee our whole right, title, and interest to the invention disclosed in the application throughout all countries foreign to the United States, and do hereby authorize the said Assignee to apply for patents therefor in its own name in countries where such procedure is proper and to claim the benefit of the International Convention and do agree to execute applications for the said invention in the several countries where it is necessary that the same be executed by the inventors, and to execute assignments of such applications and the patents to be obtained therefor to the said assignee, as well as all other necessary papers.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at Columbus, Ohio this  $Me^{fZ}$  day of  $October_{1}$ , 2001.

Sure to Somph

STATE OF OHIO COUNTY OF FRANKLIN :ss

This <u>H</u> day of <u>Children</u>, 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Bruce F. Monzyk, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

Page 2 of 11



Notary Public Delina Madiaci Alternoda

## 12910A

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to Battelle Memorial Institute

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at <u>West Jefferson</u>, Ohio this <u>7</u> day of <u>Novembr</u>, 2001.

Lana Lee M. Tonke

Anna Lee Y. Tonkovich

STATE OF OHIO ) COUNTY OF Madison )

Notary Public



ELIZABETH N. HUGHES Notary Public, State of Ohio My Commission Expires 11-29-03

Page 3 of 11

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to Battelle Memorial Institute

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at <u>Courses, Orio</u> , Washington this <u>/St</u> day of <u>Nov</u> , 2001.	
Yong Wang	-
Ohio BRK11/1/01	
STATE OF WASHINGTON )	
:SS	

This  $15^+$  day of 2000, 2001, before me, a Notary Public in and for the County aforesaid, personally appeared **Yong Wang**, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

COUNTY OF Franklin)

Brenda Block Koone

Notary Public



#### 12910A

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to Battelle Memorial Institute

la

David P. VanderWiel

STATE OF OHIO )

COUNTY OF Franklin ;s

This 2rd day of 700., 2001, before me, a Notary Public in and for the County aforesaid, personally appeared David P. VanderWiel, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

Brenda Block Koone

Notary Public



BRENDA BLOCK KOONE NOTARY PUBLIC, STATE OF OHIO IN COMMISSION EXPIRES MAY 23, 2003

Page 5 of 11

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to **Battelle Memorial Institute** 

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at West Jefferson, Ohio this 7 day of Nov. , 2001.

Steven T. Perry

STATE OF OHIO ) :ss COUNTY OF Madison)

This \_\_\_\_\_\_ day of <u>Muentler</u>, 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Steven T. Perry, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

Elizabert D Shafles Notary Public

ELIZABETH N. HUGHES Notary Public, State of Ohio My Commission Expires 11-29-03

Page 6 of 11

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to **Battelle Memorial Institute** 

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at West Jefferson, Ohio this 7th day of Nevenber, 2001.

gerald

Sean P. Fitzgerald

STATE OF OHIO ) :ss COUNTY OF Madison )

This 7th day of November, 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Sean P. Fitzgerald, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.



ELIZABETH N. HUGHES Notary Public, State of Ohio My Commission Expires 11-29-03

<u>Anglich</u> Notary Public

Page 7 of 11

Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to **Battelle Memorial Institute** 

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at Columbers, Ohio this / day of Abrember, 2001.

Ubere W. Ammine Wayne W. Simmons

STATE OF OHIO COUNTY OF Franklin ;ss

This  $15^+$  day of  $700^-$ , 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Wayne W. Simmons, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

Brenda Block Koone

Notary Public



Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to **Battelle** Memorial Institute

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at Columbus, Ohio this 1 day of November 2001.

Jeffrey J. McDaniel

STATE OF OHIO COUNTY OF Franklin

This 15t day of Nov., 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Jeffrey S. McDaniel, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

Brenda Block Koone

Notary Public



Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to Battelle Memorial Institute

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at  $\underline{\mathcal{L}}_{\mathcal{M}}$ , Ohio this  $\underline{\mathcal{L}}_{\mathcal{M}}$  day of  $\underline{\mathcal{L}}_{\mathcal{M}}$ , 2001.

Geby E. Milly J.

Albert E. Weller, Jr.

STATE OF OHIO ) COUNTY OF <u>Franklin</u>)

This  $5^{\text{K}}$  day of  $\gamma_{0^{\text{OU}}}$ , 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Albert E. Weller, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

Brenda Block Koone

Notary Public



Bruce F. Monzyk Anna Lee Y. Tonkovich Yong Wang David P. VanderWiel Steven T. Perry Sean P. Fitzgerald Wayne W. Simmons Jeffrey S. McDaniel Albert E. Weller, Jr. Chad M. Cucksey to **Battelle Memorial Institute** 

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at Cilumbus, Ohio this <u>Noth</u> day of <u>October</u>, 2001.

Chad M1. Cuchsed

STATE OF OHIO STATE OF OHIO ) COUNTY OF  $\underline{FRANKLN}$ 

This  $\mathcal{A}_{\mathcal{A}}^{\mathcal{A}}$  day of  $\mathcal{O}_{\mathcal{A}}^{\mathcal{A}}$ , 2001, before me, a Notary Public in and for the County aforesaid, personally appeared Chad M. Cucksey, personally known to me and known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.

<u>Deera Macièce</u> Notary Public Deera Macièce Iliiensen



**RECORDED: 01/14/2002**