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Form PTO-1595 Rev. 12/01 OMB No. 0651-0027 (exp. 5/31/2002) Tab settings ⇌ ⇌ ⇌ ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼		RECORDATION FORM PATENTS 102407047		U.S. DEPT. OF COMMERCE Patent and Trademark Office	
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.					
1. Name of conveying party(ies): Steven WALLACE <u>3/17/2003</u> Andrew C. STEPHAN <u>3/18/2003</u> Additional name(s) of conveying party(ies) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			2. Name and address of receiving party(ies) Name: Neutron Sciences, Inc. Internal Address: _____ Street Address: 1256 Lovell View Drive City: Knoxville State: TN Zip: 37932 Additional name(s) & address(es) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ Execution Date: 3/17/2003					
4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: <u>3/17/2003</u> A. Patent Application No.(s) 10393300 B. Patent No.(s) _____ Additional numbers attached? <input type="checkbox"/> Yes <input type="checkbox"/> No					
5. Name and address of party to whom correspondence concerning document should be mailed: Name: Jeffrey N. Cutler Internal Address: _____ (3/27/03 MAHME1 00000016 10393300 40.00 OP) Street Address: Pitts & Brittan, P.C. P.O. Box 51295 City: Knoxville State: TN Zip: 37950-1295			6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41)..... \$ 40 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to be charged to deposit account 8. Deposit account number: 16-1910 (Attach duplicate copy of this page if paying by deposit account)		
DO NOT USE THIS SPACE					
9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> Jeffrey N. Cutler Name of Person Signing  <u>03/20/03</u> Signature Date Total number of pages including cover sheet, attachments, and documents 6					

Form PTO-1595

RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

(Rev. 03/01)
OMB No. 0651-0027 (exp. 5/31/2002)

PATENTS ONLY

Tab settings ⇨ ⇨ ⇨ ▼ ▼ ▼ ▼ ▼ ▼ ▼

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Sheng DAI 3/17/2003

Oak Ridge Associated Universities 3/18/2003

Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: 3/17/2003

2. Name and address of receiving party(ies)

Name: UT-Battelle, LLC

Internal Address: _____

Street Address: 111-B Union Valley Road

City: Oak Ridge State: TN Zip: 37831-6498

Additional name(s) & address(es) attached? ☒ Yes ☐ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 3/17/2003

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Jeffrey N. Cutler

Internal Address: _____

Street Address: Pitts & Brittian, P.C.

P.O. Box 51295

City: Knoxville State: TN Zip: 37950-1295

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) \$ 40

- ☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number:

16-1910

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Jeffrey N. Cutler

Name of Person Signing

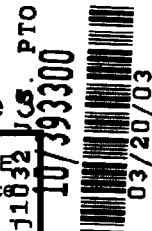
Signature

Date

Total number of pages including cover sheet, attachments, and documents 6

Mail documents to be recorded with required cover sheet information
to: Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

PATENT
REEL: 013901 FRAME: 0626



Form PTO-1595

(Rev.

OMB No. 0651-0027 (exp. 5/31/2002)

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RECORDATION FORM COVER SHEET

PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Hee-Jung IM

3/17/2003

2. Name and address of receiving party(ies)

Name: Oak Ridge Associated Universities

Internal Address:

Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

3. Nature of conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement

☐ Change of Name

☐ Other

Street Address: 130 Badger Avenue

City: Oak Ridge State: TN Zip: 37831-0117

Execution Date: 3/17/2003

Additional name(s) & address(es) attached? ☒ Yes ☐ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 3/17/2003

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Jeffrey N. Cutler

Internal Address:

Street Address: Pitts & Brittan, P.C.

P.O. Box 51295

City: Knoxville State: TN Zip: 37950-1295

6. Total number of applications and patents involved: 1

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☒ Enclosed

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16-1910

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Jeffrey N. Cutler

Name of Person Signing

Signature

03/20/03

Date

Total number of pages including cover sheet, attachments, and documents 6

Mail documents to be recorded with required cover sheet information
to: Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

PATENT
REEL: 013901 FRAME: 0627

ASSIGNMENT

I, the below-identified Inventor, for good and valuable consideration, receipt of which is hereby acknowledged, have assigned and do hereby assign to

Neutron Sciences, Inc., a corporation of Tennessee, domiciled in Knoxville, TN

(hereinafter "Assignee") , its successors, assigns, and legal representatives the entire right, title and interest throughout the world in and to all subject matter invented by me and disclosed in the application for a Letters Patent in the United States executed by me on the date hereinafter indicated entitled:

Neutron Detector Using Lithiated Glass-Scintillating Particle Composite

and in and to all patent and all foreign, convention and treaty rights of all kinds, in all countries throughout the world, for all such subject matter or improvements therein. I agree to sign all papers necessary to secure all said patent rights, and request issuance of all said patents to Assignee in accordance with this assignment.

March 17, 2003
Date

Steven Wallace
Inventor
Steven WALLACE
1256 Lovell View Drive
Knoxville, TN 37932
Knox County, TN

IN THE COUNTY OF Knox)
STATE OF Tennessee) ss.:

I hereby certify that before me personally appeared Steven WALLACE , personally known by me, who then and there was duly sworn by me, and under oath acknowledged that the foregoing instrument was duly signed, sealed and delivered by Steven WALLACE on the date appearing at the foot thereof, all of which took place within my jurisdiction.

Don Coleman
NOTARY PUBLIC

My Commision Expires:

My Comm. Expires
April 29, 2005

ASSIGNMENT

I, the below-identified Inventor, for good and valuable consideration, receipt of which is hereby acknowledged, have assigned and do hereby assign to

Neutron Sciences, Inc., a corporation of Tennessee, domiciled in Knox, TN

(hereinafter "Assignee") , its successors, assigns, and legal representatives the entire right, title and interest throughout the world in and to all subject matter invented by me and disclosed in the application for a Letters Patent in the United States executed by me on the date hereinafter indicated entitled:

Neutron Detector Using Lithiated Glass-Scintillating Particle Composite

and in and to all patent and all foreign, convention and treaty rights of all kinds, in all countries throughout the world, for all such subject matter or improvements therein. I agree to sign all papers necessary to secure all said patent rights, and request issuance of all said patents to Assignee in accordance with this assignment.

5/18/2003
Date

Andrew C. Stephan
Inventor
Andrew C. STEPHAN
441 Hillvale Turn East
Knoxville, TN 37919
Knox County, TN

IN THE COUNTY OF Knox)
STATE OF Tennessee) ss.:

I hereby certify that before me personally appeared Andrew C. STEPHAN , personally known by me, who then and there was duly sworn by me, and under oath acknowledged that the foregoing instrument was duly signed, sealed and delivered by Andrew C. STEPHAN on the date appearing at the foot thereof, all of which took place within my jurisdiction.

David Coleman
NOTARY PUBLIC

My Commision Expires:

My Comm. Expires
April 29, 2006

ASSIGNMENT

WHEREAS, I, the below-named inventor whose residence and post office box is as stated below, have invented certain new and useful improvements in an

NEUTRON DETECTOR USING LITHIATED GLASS-SCINTILLATING PARTICLE COMPOSITE

(hereinafter referred to as "Subject Invention") for which an application for United States Letters Patent was executed by me on even date herewith, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at 111-B Union Valley Road, P.O. Box 2008, Oak Ridge, Tennessee 37831-6498 (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the right, title, and interest of the undersigned in the Subject Invention and to any Letters Patent that may be granted therefore in the United States of America and in any and all foreign countries.

NOW, THEREFORE, in accordance with the terms of my employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby assign to ASSIGNEE my entire right, title, and interest in the Subject Invention, to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or applications therefore on the Subject Invention.

I hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, I hereby agree to communicate to said ASSIGNEE or its representatives any facts known to me respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

I further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on me, my heirs, legal representatives, and assigns.

Full name of inventor: Sheng Dai

Inventor's Signature: Sheng Dai

Date: Mar. 17, 2003

Address: 12813 Paladin Lane, Knoxville, TN 37922

State of Tennessee)
County of Anderson)

On this 17th day of March, 2003, before me, a Notary Public in and for the County and State aforesaid, appeared Sheng Dai, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

Shelley L. Stappard
Notary Public

SEAL

My Commission Expires: Sept. 12, 2004

**ASSIGNMENT AGREEMENT BETWEEN
UT-BATTELLE, LLC AND ORAU**

THIS AGREEMENT is by and between UT-Battelle, LLC a limited liability company organized and existing under the laws of the State of Tennessee (hereinafter "UT-BATTELLE") in accordance with its prime contract No. DE-AC05-00OR22725 (hereinafter "UT-Battelle's Prime Contract") with the U.S. Department of Energy (hereinafter DOE) and Oak Ridge Associated Universities (hereinafter "ORAU"), the not-for-profit operating contractor of the DOE's Oak Ridge Institute for Science and Education (hereinafter "ORISE") under its prime contract No. DE-AC05-00OR22750 (hereinafter "ORAU's Prime Contract") with the DOE, both being hereinafter jointly referred to as the "Parties" and singularly as a "Party."

WHEREAS:

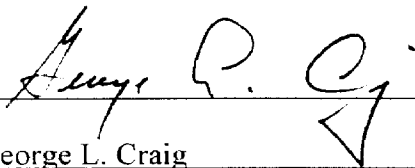
- A. The Parties have developed technology identified in the invention disclosures, patent applications, and/or patents listed in Exhibit A (hereinafter Proprietary Rights); and
- B. The Parties desire that ORAU assign its undivided right, title, and interest to the Proprietary Rights to UT-BATTELLE to place ownership of all Proprietary Rights in a single Party, thereby promoting effective and successful commercialization of Proprietary Rights.

NOW THEREFORE THE PARTIES AGREE AS FOLLOWS:

- 1. In consideration of good and valuable consideration--including, but not limited to the promises contained in the Memorandum of Agreement between UT-BATTELLE and ORAU that was made effective September 28, 2001--the receipt and sufficiency of such consideration being hereby acknowledged, ORAU by these presents does hereby sell, assign, transfer and set over unto UT-BATTELLE, its successors, legal representatives and assigns, its entire right, title, and interest (if any) in, to, and under the Proprietary Rights.
- 2. UT-BATTELLE shall share with ORAU portions of royalties UT-BATTELLE receives from licensees, if any, of the Proprietary Rights in accordance with the aforesaid Memorandum of Agreement.
- 3. UT-BATTELLE shall obligate any licensees of the Proprietary Rights to indemnify ORAU for any liability arising from the making, using, importing or selling of a product, process or service by or on behalf of the Licensee, its assignees or licensees which was derived from the Proprietary Rights, except for any negligent acts or omissions of ORAU.
- 4. UT-BATTELLE shall obligate any licensees of the Proprietary Rights as listed in Exhibit A to comply with all U. S. export control laws and regulations applicable to the export of the Proprietary Rights.
- 5. ORAU makes no warranties or representations of any kind regarding the Proprietary Rights.
- 6. The effective date of this agreement is 17 March, 2003 and it shall run to and terminate upon the end of the life of the last-to-expire Proprietary Rights of Exhibit A.

In witness whereof the Parties have executed this agreement below:

UT-BATTELLE, LLC

By: 
Name: George L. Craig
Title: General Patent Counsel
Date: 18 March 2003

OAK RIDGE ASSOCIATED UNIVERSITIES

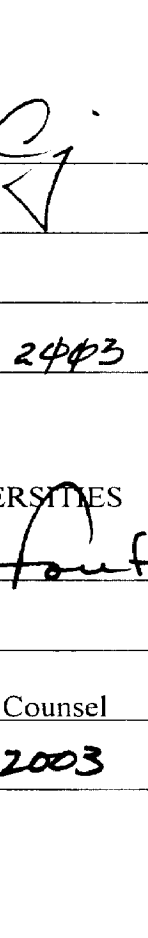
By: 
Name: James L. Foutch
Title: Vice President & General Counsel
Date: March 18, 2003

EXHIBIT A, PROPRIETARY RIGHTS

UT-B Docket No.	Title (Patent Appl. No., Patent No.)	Contract Type & No.	Inventors		
			UT-Battelle	ORAU	Others
ID 1215	Neutron Detector Using Lithiated Glass-Scintillating Particle Composite		Sheng Dai	Hee-Jung Im	Steven Wallace Andrew C. Stephan

ASSIGNMENT

WHEREAS, I, the below-named inventor whose residence and post office are as stated below, am a co-inventor of certain new and useful improvements in

**NEUTRON DETECTOR USING LITHIATED GLASS-SCINTILLATING
PARTICLE COMPOSITE**

(hereinafter referred to as "Subject Invention") for which an application for United States Letters Patent was executed by me on even date herewith, and

WHEREAS, Oak Ridge Associated Universities, the not-for-profit operating contractor of the U.S. Department of Energy's Oak Ridge Institute for Science and Education under its prime contract No. DE-AC05-00OR22750, hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest of the undersigned in the Subject Invention and to any Letters Patent that may be granted therefor in the United States of America and in any and all foreign countries.

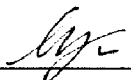
NOW, THEREFORE, in accordance with the terms of my employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby assign to ASSIGNEE my entire right, title and interest in the Subject Invention, to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or applications therefor on the Subject Invention.

I hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, I hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

I further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on me, my heirs, legal representatives, and assigns.

Full name of inventor: Hee-Jung Im

Signature: 

Date: 03/17/03

Residence: 1611 Laurel Avenue, Apt. 221, Knoxville, TN 37916

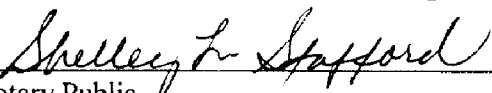
Post Office Address: 1611 Laurel Ave. Apt. #221, Knoxville, TN 37916

State of Tennessee)

County of Anderson)

On this 17th day of March, 2003, before me, a Notary Public in and for the County and State aforesaid, appeared Hee-Jung Im to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that she executed said instrument as her free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.


Notary Public

SEAL

My Commission Expires: Sept. 12, 2004