

## PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Bruce A. Moyer</td> <td>12/04/2012</td> </tr> <tr> <td>Laetitia H. Delmau</td> <td>12/04/2012</td> </tr> <tr> <td>Peter V. Bonnesen</td> <td>12/04/2012</td> </tr> </tbody> </table>		Name	Execution Date	Bruce A. Moyer	12/04/2012	Laetitia H. Delmau	12/04/2012	Peter V. Bonnesen	12/04/2012				
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>UT-Battelle, LLC</td> </tr> <tr> <td>Street Address:</td> <td>One Bethel Valley Road</td> </tr> <tr> <td>Internal Address:</td> <td>4500N, MS-6258</td> </tr> <tr> <td>City:</td> <td>Oak Ridge</td> </tr> <tr> <td>State/Country:</td> <td>TENNESSEE</td> </tr> <tr> <td>Postal Code:</td> <td>37831-6258</td> </tr> </table>		Name:	UT-Battelle, LLC	Street Address:	One Bethel Valley Road	Internal Address:	4500N, MS-6258	City:	Oak Ridge	State/Country:	TENNESSEE	Postal Code:	37831-6258
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PROPERTY NUMBERS Total: 2													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12268189</td> </tr> <tr> <td>Patent Number:</td> <td>8158088</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12268189	Patent Number:	8158088						
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CORRESPONDENCE DATA													
Fax Number: 8655740381 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: (865) 574-0393 Email: vanceke@oml.gov Correspondent Name: Edna I. Gergel Address Line 1: One Bethel Valley Road Address Line 2: 4500N, MS-6258 Address Line 4: Oak Ridge, TENNESSEE 37831-6258													
ATTORNEY DOCKET NUMBER:	2123												
NAME OF SUBMITTER:	Karen E. Vance												

CH \$80.00 12268189

Total Attachments: 5

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**RECORDATION FORM COVER SHEET**  
**PATENTS ONLY**

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

Bruce A. Moyer  
Laetitia H. Delmau  
Peter V. Bonnesen

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

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) 12/04/2012

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

**2. Name and address of receiving party(ies)**

Name: UT-Battelle, LLC

Internal Address: 4500N, MS-6258

Street Address: One Bethel Valley Road

City: Oak Ridge

State: TN

Country: USA Zip: 37831-6258

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

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

☐ This document is being filed together with a new application.

A. Patent Application No.(s)  
12/268,189

B. Patent No.(s)

8,158,088

Additional numbers attached? ☐ Yes ☒ No

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

Name: Edna I. Gergel

Internal Address: UT-Battelle, LLC

Street Address: One Bethel Valley Road

4500N, MS-6258

City: Oak Ridge

State: TN Zip: 37831-6258

Phone Number: (865) 574-0393

Fax Number: (865) 574-0381

Email Address: gergelei@ornl.gov

**6. Total number of applications and patents involved: 1**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- ☐ Authorized to be charged by credit card  
☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number 13-1958

Authorized User Name Karen E. Bowman

**9. Signature:**

/Edna I. Gergel/  
Signature

12/05/2012  
Date

Edna I. Gergel, Reg. No. 50819  
Name of Person Signing

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

5

## ASSIGNMENT

WHEREAS, we the below-named inventors whose residences are as stated below, have an interest in an invention entitled:

**Extractant Compositions for Co-Extracting Cesium and Strontium, a Method of Separating Cesium and Strontium from an Aqueous Feed, and Calixarene Compounds**

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 12/268,189 filed on November 10, 2008, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at One Bethel Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6258, hereinafter referred to as "ASSIGNEE," is desirous of acquiring our entire right, title and interest of the undersigned in the same;

NOW, THEREFORE, in accordance with the terms of our employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to ASSIGNEE and its successors in interest our 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 patent applications therefor on the Subject Invention.

We 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, we 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.

We 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 us, our heirs, legal representatives, and assigns.

Full Name of First Inventor: Bruce A. Moyer

Signature: [Signature] Date: Dec. 4, 2012

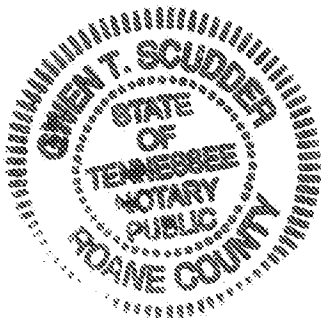
Residence: 112 Westview Lane, Oak Ridge, Tennessee 37830

State of Tennessee )

County of Roane )

On this 4 day of December, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared **BRUCE A. MOYER** 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.



[Signature]  
Notary Public

SEAL

My Commission Expires:

My Commission Expires Monday, September 12, 2016.

Full Name of First Inventor: Lætitia H. Delmau

Signature: Lætitia H. Delmau Date: 12/04/2012

Residence: 121 Normandy Road, Oak Ridge, Tennessee 37830

State of Tennessee )

County of Roane )

On this 4 day of December, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared LÆTITIA H. DELMAU 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.



Chant. Solides  
Notary Public

SEAL

My Commission Expires:

My Commission Expires Monday, September 12, 2016.

Full Name of First Inventor: Peter V. Bonnesen

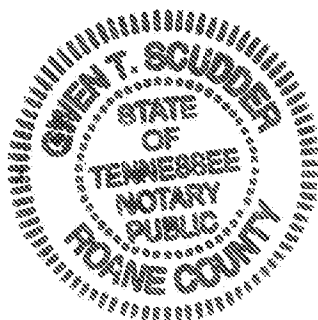
Signature: Peter V. Bonnesen Date: 12-4-2012

Residence: 406 Moser Lane, Knoxville, Tennessee 37934-4043

State of Tennessee )  
County of Roane )

On this 4 day of December, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared PETER V. BONNESEN 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.



Owen T. Scudder  
Notary Public

SEAL

My Commission Expires:

My Commission Expires Monday, September 12, 2016.