

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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>Klint A. Rose</td> <td>08/27/2012</td> </tr> <tr> <td>Karl A. Fisher</td> <td>08/20/2012</td> </tr> <tr> <td>Douglas A. Wajda</td> <td>01/30/2013</td> </tr> <tr> <td>Raymond P. Mariella Jr.</td> <td>08/20/2012</td> </tr> <tr> <td>Christopher Bailey</td> <td>08/24/2012</td> </tr> <tr> <td>Dietrich Dehlinger</td> <td>05/30/2013</td> </tr> <tr> <td>Maxim Shusteff</td> <td>08/24/2012</td> </tr> <tr> <td>Byoungsok Jung</td> <td>08/21/2012</td> </tr> <tr> <td>Kevin D. Ness</td> <td>08/28/2012</td> </tr> </tbody> </table>		Name	Execution Date	Klint A. Rose	08/27/2012	Karl A. Fisher	08/20/2012	Douglas A. Wajda	01/30/2013	Raymond P. Mariella Jr.	08/20/2012	Christopher Bailey	08/24/2012	Dietrich Dehlinger	05/30/2013	Maxim Shusteff	08/24/2012	Byoungsok Jung	08/21/2012	Kevin D. Ness	08/28/2012
Name	Execution Date																				
Klint A. Rose	08/27/2012																				
Karl A. Fisher	08/20/2012																				
Douglas A. Wajda	01/30/2013																				
Raymond P. Mariella Jr.	08/20/2012																				
Christopher Bailey	08/24/2012																				
Dietrich Dehlinger	05/30/2013																				
Maxim Shusteff	08/24/2012																				
Byoungsok Jung	08/21/2012																				
Kevin D. Ness	08/28/2012																				
RECEIVING PARTY DATA																					
Name:	Lawrence Livermore National Security, LLC																				
Street Address:	2300 First Street, Suite 204																				
City:	Livermore																				
State/Country:	CALIFORNIA																				
Postal Code:	94550																				
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>13571640</td> </tr> <tr> <td>Application Number:</td> <td>61524020</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13571640	Application Number:	61524020														
Property Type	Number																				
Application Number:	13571640																				
Application Number:	61524020																				
CORRESPONDENCE DATA																					
Fax Number:																					
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																					
Email:	yu25@llnl.gov																				
Correspondent Name:	Mark H. Lough/LLNS																				
Address Line 1:	7000 East Ave.,																				
Address Line 4:	Livermore, CALIFORNIA 94550																				

CH \$80.00 13571640

ATTORNEY DOCKET NUMBER:	IL-12323
NAME OF SUBMITTER:	Mark H. Lough
Signature:	/Mark H. Lough/
Date:	08/13/2013

Total Attachments: 9

source=IL_12323_Assignment_08132013#page1.tif
source=IL_12323_Assignment_08132013#page2.tif
source=IL_12323_Assignment_08132013#page3.tif
source=IL_12323_Assignment_08132013#page4.tif
source=IL_12323_Assignment_08132013#page5.tif
source=IL_12323_Assignment_08132013#page6.tif
source=IL_12323_Assignment_08132013#page7.tif
source=IL_12323_Assignment_08132013#page8.tif
source=IL_12323_Assignment_08132013#page9.tif

ASSIGNMENT

LLNL Case No.: IL-12323

For good and valuable consideration the receipt of which is hereby acknowledged ASSIGNOR(s)

- | | |
|------------------------------|------------------------------------|
| 1. <u>Klint A. Rose</u> | 2. <u>Karl A. Fisher</u> |
| 3. <u>Douglas A. Wajda</u> | 4. <u>Raymond P. Mariella, Jr.</u> |
| 5. <u>Christopher Bailey</u> | 6. <u>Dietrich Dehlinger</u> |
| 7. <u>Maxim Shusteff</u> | 8. <u>Byoungsok Jung</u> |
| 9. <u>Kevin D. Ness</u> | 10. _____ |

hereby sells, assigns and transfers to ASSIGNEE, Lawrence Livermore National Security, LLC, a Delaware Corporation, having its administrative offices located at 2300 First Street, Suite 204, Livermore, CA 94550 and the successors, assigns and legal representative of the ASSIGNEE all of its right, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

MICROFLUIDIC ULTRASONIC PARTICLE SEPARATORS WITH ENGINEERED NODE LOCATIONS AND GEOMETRIES

and which is found in

- U.S. patent application executed on _____, entitled as above and listing the above named persons as inventors
- U.S. patent application serial no. 13571640, filed on August 10, 2012
- U.S. patent application serial no. 61524020, filed on August 16, 2011
- U. S. patent no. _____, issued _____

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;


ASSIGNOR(S) further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, Lawrence Livermore National Security, LLC.

executed this

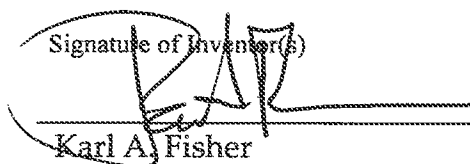
Signature of Inventor(s)

08/27/2012
Date


Klint A. Rose

executed this

8/20/2012
Date

Signature of Inventor(s)

Karl A. Fisher

LLNS Case No.: IL-12323

executed this

1-30-2013
Date

Signature of Inventor(s)


Douglas A. Wajda

LLNS Case No.: IL-12323

executed this

20 August 2012
Date

Signature of Inventor(s)

Raymond P. Mariella, Jr.
Raymond P. Mariella, Jr.

executed this

8/24/12
Date

Signature of Inventor(s)

Christopher Bailey
Christopher Bailey

LLNS Case No.: IL-12323

executed this

5-30-2013
Date

Signature of Inventor(s)

Dietrich Dehlinger
Dietrich Dehlinger

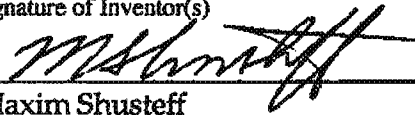
LLNS Case No.: IL-12323

executed this

8/24/2012

Date

Signature of Inventor(s)



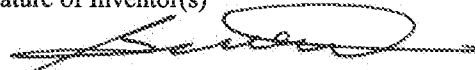
Maxim Shusteff

executed this

8/21/2012

Date

Signature of Inventor(s)



Byoungsok Jung

LLNS Case No.: IL-12323

executed this

8-28-12

Date

Signature of Inventor(s)

Kevin Ness

Kevin D. Ness