

# PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT												
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Jerry C. Carter</td> <td>08/20/2009</td> </tr> <tr> <td>James W. Chan</td> <td>08/24/2009</td> </tr> <tr> <td>James E. Trebes</td> <td>08/21/2009</td> </tr> <tr> <td>Stanley M. Angel</td> <td>08/20/2009</td> </tr> <tr> <td>Boris Mizaikoff</td> <td>08/23/2009</td> </tr> </tbody> </table>		Name	Execution Date	Jerry C. Carter	08/20/2009	James W. Chan	08/24/2009	James E. Trebes	08/21/2009	Stanley M. Angel	08/20/2009	Boris Mizaikoff	08/23/2009
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<b>RECEIVING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Name:</b></td> <td>Lawrence Livermore National Security, LLC</td> </tr> <tr> <td><b>Street Address:</b></td> <td>7000 East Avenue</td> </tr> <tr> <td><b>Internal Address:</b></td> <td>P.O. Box 808</td> </tr> <tr> <td><b>City:</b></td> <td>Livermore</td> </tr> <tr> <td><b>State/Country:</b></td> <td>CALIFORNIA</td> </tr> <tr> <td><b>Postal Code:</b></td> <td>94551</td> </tr> </table>		<b>Name:</b>	Lawrence Livermore National Security, LLC	<b>Street Address:</b>	7000 East Avenue	<b>Internal Address:</b>	P.O. Box 808	<b>City:</b>	Livermore	<b>State/Country:</b>	CALIFORNIA	<b>Postal Code:</b>	94551
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<b>PROPERTY NUMBERS Total: 1</b>													
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<b>CORRESPONDENCE DATA</b>													
<p><b>Fax Number:</b> (925)422-2231</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p><b>Phone:</b> 925 422-7073</p> <p><b>Email:</b> clinkenbeard3@llnl.gov</p> <p><b>Correspondent Name:</b> John H. Lee/LLNS</p> <p><b>Address Line 1:</b> 7000 East Avenue</p> <p><b>Address Line 2:</b> P.O. Box 808</p> <p><b>Address Line 4:</b> Livermore, CALIFORNIA 94551</p>													
<b>ATTORNEY DOCKET NUMBER:</b>	IL-11891												

CH \$40.00 12545566

**500975522**

**PATENT**  
**REEL: 023300 FRAME: 0661**

NAME OF SUBMITTER:

John H. Lee

**Total Attachments: 6**

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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)**

a. Jerry C. Carter  
b. James W. Chan  
c. James E. Trebes  
d. Stanley M. Angel  
e. Boris Mizalkoff

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

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

Name: Lawrence Livermore National Security, LLC

Internal Address: P.O. Box 808

Street Address: 7000 East Avenue

City: Livermore

State: California

Country: US Zip: 94551-0808

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

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

Execution Date(s) 8/20/09; 8/21/09; 8/23/09; 8/24/09

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

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

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

A. Patent Application No.(s)

B. Patent No.(s)

12/545566

Additional numbers attached? ☐ Yes ☒ No

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

Name: John H. Lee/Lawrence Livermore National Security

Internal Address: P.O. Box 808

Street Address: 7000 East Avenue

City: Livermore

State: California Zip: 94551-0808

Phone Number: 925 422-7272

Fax Number: 925 423-2231

Email Address: clinkenbeard3@llnl.gov

**6. Total number of applications and patents involved:** \_\_\_\_\_

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

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

**8. Payment Information**

Deposit Account Number 12-0695

Authorized User Name Linda Clinkenbeard

**9. Signature:**

/John H. Lee, #53,193/

September 29, 2009

Signature

Date

John H. Lee

Name of Person Signing

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

6

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

## ASSIGNMENT

LLNL Case No.: IL-11891

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

1. <u>Jerry C. Carter</u>	2. <u>James W. Chan</u>
3. <u>James E. Trebes</u>	4. <u>// Stanley M. Angel</u>
5. <u>// Boris Mizaikoff</u>	6. <u>//</u>
7. <u>//</u>	8. <u>//</u>
9. <u>//</u>	10. <u>//</u>

hereby sells, assigns and transfers to ASSIGNEE, Lawrence Livermore National Security, LLC, a Delaware Corporation, having its administrative offices located at Sunset Plaza Building C, 1658 Holmes St., Livermore, CA 94551 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:

A COMBINED RAMAN AND IR FIBER-BASED SENSOR FOR GAS DETECTION

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. 12/545566, filed on August 21, 2009
- ☐ 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

8/20/09  
Date

Signature of Inventor(s)

Jerry C. Carter  
Jerry C. Carter

executed this

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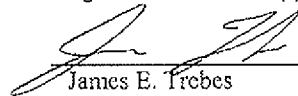
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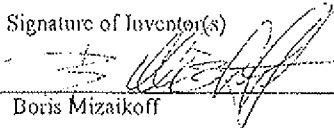
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