Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Tiziana Bond	05/27/2008
Lynford Goddard	05/27/2008
Garrett Cole	05/27/2008
Jeff Kallman	05/27/2008

RECEIVING PARTY DATA

Name:	Lawrence Livermore National Security, LLC	
Street Address:	7000 East Avenue	
Internal Address:	L-703	
City:	Livermore	
State/Country:	CALIFORNIA	
Postal Code:	94550	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12129503

CORRESPONDENCE DATA

Fax Number: (925)423-2231

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 925-422-7073

Email: nugent8@llnl.gov

Correspondent Name: John H. Lee/LLNS

Address Line 1: 7000 East Avenue

Address Line 2: L-703

500571372

Address Line 4: Livermore, CALIFORNIA 94550

ATTORNEY DOCKET NUMBER: IL-11860

NAME OF SUBMITTER: John H. Lee

ME OF SUBMITTER: John H. Lee

PATENT

REEL: 021121 FRAME: 0847

\$40.00

Z HO _____ Total Attachments: 4

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PATENT REEL: 021121 FRAME: 0848

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

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)	2. Name and address of receiving party(ies)			
Tiziana Bond Lynford Goddard	Name: Lawrence Livermore National Security, LLC			
Garrett Cole Jeff Kallman	Internal Address; P.O. Box 808, L-703			
Additional name(s) of conveying party(ies) attached? Yes V No				
3. Nature of conveyance/Execution Date(s):	Street Address: 7000 East Avenue			
Execution Date(s) 05/27/08				
Assignment Merger				
Security Agreement Change of Name	City: Livermore			
Joint Research Agreement	State: CA			
Government Interest Assignment				
Executive Order 9424, Confirmatory License	Country: USA Zip: 94551			
Other	Additional name(s) & address(es) attached? Yes No			
4. Application or patent number(s):	document is being filed together with a new application.			
A. Patent Application No.(s)	B. Patent No.(s)			
12/129,503 filed 05/29/08				
Additional numbers at	ached? Yes VNo			
5. Name and address to whom correspondence	6. Total number of applications and patents			
concerning document should be mailed:	involved: 1 (ONE)			
Name: John H. Lee/LLNS	7. Total fee (37 CFR 1.21(h) & 3.41) \$.40.			
Internal Address: P.O. Box 808, L-703	Authorized to be charged by credit card			
	Authorized to be charged to deposit account			
Street Address: 7000 East Avenue	Enclosed			
	None required (government interest not affecting title)			
City: Livermore	8. Payment Information			
State: CA Zip: <u>94551</u>	a. Credit Card Last 4 Numbers Expiration Date			
Phone Number:925/422-7073				
Fax Number: 925/423-2231	b. Deposit Account Number 12-0695			
Email Address: N/A	Authorized User Name Wanda Nugent			
9. Signature: /////////	<u> </u>			
Signature				
Wanda Nugent	Total number of pages including cover			
Name of Person Signing	sheet, attachments, and documents:			

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

<u>ASSIGNMENT</u>

LLNL Case No.: IL-11	860		
For good and valuable	consideration the receipt of	whic	h is hereby acknowledged ASSIGNOR(s)
1. Tiziana Bond		2	Garrett Cole
3. Lynford Goddard		4.	Jeff Kallman
5. <u>//</u>		6.	
7		8.	
9//		10.	<u> </u>
hereby sells, assigns and transfers to ASSIGNEE, Lawrence Livermore National Security, LLC, a Delaware Corporation, having its administrative offices located at 7000 East Avenue, Livermore, California 94551-9234, 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: Low Loss, High and Low Index Contrast Waveguides in Semiconductors			
and which is found in			
U.S. patent appli	cation executed on $05/2$ ve named persons as inver	7/08 ntors	, entitled as above and
W U.S. patent appli	cation serial no. 12/129,5	503	, filed on <u>05/29/08</u>
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(the United States and California.	S) requests the Commission any reissue or extension	ner o	of Patents and Trademarks to issue said Letters Patent of reof to the ASSIGNEE, the Regents of the University of
executed this			Signature of Inventor(s)
<u> </u>		C	Signature of Inventor(s) TUS CULCES TIZIA Bond
Date			Tiziaha Bond

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IL-11860

executed this	Signature of Inventor(s)
<u>5/22/2008</u> Date	Garrett Cole
executed this	Signature of Inventor(s)
	Scenly page
<u>5/02/08</u>	Jay Jallan
Ďate - End	Jeff Kaliman of Document - B -11860

executed this Date Garrett Cole executed this Signature of Inventor(s) Signature of Inventor(s) Lynford Goddard

- End of Document -IL-11860

Jeff Kallman

IL-11860

Date