PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Chee Wei Wong	09/13/2008
James F McMillan	09/18/2008
Xiaodong Yang	09/18/2008
Richard Osgood Jr	10/17/2008

RECEIVING PARTY DATA

Name:	The Trustees of Columbia University	
Street Address:	412 Low Memorial Library	
Internal Address:	535 West 116th Street	
City:	New York	
State/Country:	NEW YORK	
Postal Code:	10027	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12948706

CORRESPONDENCE DATA

Fax Number:

Phone: 2128376000

Email: patents@hugheshubbard.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Hughes Hubbard & Reed LLP
Address Line 1: One Battery Park Plaza
Address Line 4: New York, NEW YORK 10004

ATTORNEY DOCKET NUMBER:	011827-52589
NAME OF SUBMITTER:	Angel Matos

PATENT

REEL: 028952 FRAME: 0194

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Total Attachments: 6

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> PATENT REEL: 028952 FRAME: 0195

Attorney Docket No.: 19240.415-US2

ASSIGNMENT

WHEREAS, we, Chee Wei Wong, residing at 560 Riverside Drive, Apt. 8G, New York, NY 10027 USA; James F. McMillan, residing 574 West End Avenue, Apt. 55, New York, NY 10024 USA; Xiaodong Yang, residing at 423 W. 125th Street, Apt. 8, New York, NY 10027 USA; Richard Osgood, Jr., residing at 345 Quaker Street, Chappaqua, NY 10514 USA; Jerry Dadap, residing at 190 Branch Avenue, Red Bank, NJ 07701 USA; and Nicolae Panoiu, residing at 3265 Bainbridge Avenue, Apt. B13, Bronx, NY 10467 USA, (collectively the "Assignors") are the inventors of a certain new and useful invention and discovery entitled "DEVICES AND METHODS FOR PROVIDING STIMULATED RAMAN LASING" ("the Invention") for which a patent application was filed with the United States Patent and Trademark Office on February 29, 2008 as U.S. Patent Application Number 12/065,406 ("the Application").

WHEREAS, The Trustees of Columbia University in the City of New York, existing under the laws of the State of New York, having its principal office at 412 Low Memorial Library, 535 West 116th Street, New York, NY 10027, which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

For valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignors hereby assign to Assignee all of Assignors' right, title and interest in and to the Invention, all improvements therein, the Application and all priority rights arising therefrom, and any applications and/or patents, and any reissues and extensions thereof, which issue in any country upon any patent applications which correspond with any of the following: the Application; any application that claims priority from the Application (including utility applications, divisionals, continuations, continuations-in-part, international applications and/or any foreign regional and/or national applications), or any application based in whole or in part on any of the foregoing.

Assignors agree that such Assignors and Assignors' heirs and legal representatives will, without further consideration, cooperate with Assignee in the prosecution of all of the above applications, execute, verify, acknowledge and deliver all such further papers, including applications for patents and for reissues and extensions therefor, and instruments of assignment and transfer thereof, and will communicate any facts known to Assignors relating to the Invention, to obtain or maintain or enforce patents for the Invention and improvements therein in any and all countries and to vest title thereto in Assignee. Assignors further agree that such Assignors will, without further compensation to

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Assignment

U.S. Patent Application No.: 12/065,406

Attorney Docket No.: 19240.415-US2

Assignors during the term of such Assignors' employment by Assignee and thereafter for reasonable compensation as determined by Assignee, perform such other acts as may be reasonably required when requested by Assignee, including attending depositions, preparing and executing declarations and affidavits and testifying as a witness, to obtain or maintain or enforce patents for the Invention and improvements therein in any and all countries and to vest title thereto in Assignee.

IN TESTIMONY WHEREOF, I have I	nereunto set my hand and seal this 18 day of
&ct (Month/Year)	ententa d
300X	11
· ·	Lyl-
	Chee Wei Wong
10 (1/-0	- 0
On this / day of Sept / 20	(Month/Year), Chee Wei Wong, personally known recuted the foregoing Assignment, and who acknowledged to
to me to be the same individual who ex	ecuted the foregoing Assignment, and who acknowledged to
me that execution of the same was of h	is own free will for the use and purposes therein set forth.
	Day 189: 11.
	WITNESS: YUGANULULULULULULULULULULULULULULULULULULUL
	Printed Name: James M. Won.
	Residential Address: 603 W (39 H, St. 4)
	NY NY 10031
	` /
	1./
IN TESTIMONY WHEREOF, I have I	hereunto set my hand and seal this $\underline{\mathcal{U}}$ day of $_{\alpha\Lambda}$
Sept (Month/Year)	(1)
`L@4	James F. McMillan
	first 100 cmc
/1	
Out 16th Sult /2	Month/Year), James F. McMillan, personally who executed the foregoing Assignment, and who
On this 6 day of John Co	(Month Year), James F. McMillan, personally
known to me to be the same individual	the same was of his over free will for the use and numbers
	the same was of his own free will for the use and purposes
therein set forth.	
	WITNESS: One Wei Way 6
	Printed Name: (Wit Wil Visa
	Residential Address: 560 Livellico Druk #867
	Why Will NY 1007.
	With the transfer

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National Yang On this G day of 9/200 (Month/Year), Xiaodong Yang, personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS:	IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 10 day of (Month/Year)	
IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this day of (Month/Year) Richard Osgood, Jr. On this day of (Month/Year), Richard Osgood, Jr., personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS:		
IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this day of (Month/Year) Richard Osgood, Jr. On this day of (Month/Year), Richard Osgood, Jr., personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS: Printed Name:	to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth.)
(Month/Year) Richard Osgood, Jr. On this day of (Month/Year), Richard Osgood, Jr., personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS: Printed Name:	Printed Name: Janes Mchillich Residential Address: 608 W (30HM St NY, NY 100	<u> </u>
(Month/Year) Richard Osgood, Jr. On this day of(Month/Year), Richard Osgood, Jr., personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS: Printed Name:		
On this day of (Month/Year), Richard Osgood, Jr., personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS: Printed Name:		
known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes therein set forth. WITNESS: Printed Name:	Richard Osgood, Jr.	
Printed Name:	known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purposes	
	WITNESS:	
		 -

Assignment U.S. Patent Application No.: 12/065,406

US1DOCS 6807485v1

Attorney Docket No.: 19240.415-US2

Assignment U.S. Patent Application No.: 12/	Attorney D cket No.: 19240.415-US2 /065,406
IN TESTIMONY WHEREOF, I(Month/Year)	have hereunto set my hand and seal this day of
	Xiaodong Yang
On this day of to me to be the same individual me that execution of the same w	(Month/Year), Xiaodon; Yang, personally known who executed the foregoing Assignment, and who acknowledged to eas of his own free will for the use and pur uses therein set forth.
	WITNESS: Printed Name: Residential Address:
IN TESTIMONY WHEREOF, I	have hereunto set my hand and seal this 7 day of
On this 1 7 day of 0-1 20	Richard Osgood, J Richard Osgood, J (Month/Year), Richard sgood, Jr., personally ividual who executed the foregoing Assignment, and who
acknowledged to me that execut therein set forth.	ion of the same was of his own free will for the use and purposes

WITNESS:

Printed Name: Soli Gil 12.1

Residential Address: 28 Sickle: St. Apt. 21-D

New York, NY 2040

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IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this $\frac{7}{2}$ day of Ochber (Month/Year) On this 7 day of Ochber 1208 (Month/Year), Jerry Dat up, personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and purpos a therein set forth. WITNESS: Printed Name: Residential Address: 1/32 Midland IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this ____ day of (Month/Year) Nicolae Panoiu On this _____ day of _ (Month/Year), Nicolae lanoiu, personally known to me to be the same individual who executed the foregoing Assignment, and who acknowledged to me that execution of the same was of his own free will for the use and pur oses therein set forth. WITNESS: Printed Name: Residential Address:

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Assignment

U.S. Patent Application No.: 12/065,406

Attorney E :cket No.: 19240.415-U\$2

Assignment U.S. Patent Application No.: 12/065	Attorney Docket No.: 19240.415-US2 5,406
IN TESTIMONY WHEREOF, I have(Month/Year)	ve hereunto set my hand and seal this day of
	Jerry Dadap
On this day of me to be the same individual who extends that execution of the same was of hi	(Month/Year), Jerry Dadap, personally known to kecuted the foregoing Assignment, and who acknowledged to me is own free will for the use and purposes therein set forth.
	WITNESS:
	Printed Name:
	Residential Address:
IN TESTIMONY WHEREOF, I have 2 00 / (Month/Year)	ve hereunto set my hand and seal this 30 day of October
	dismin-
	Nicolae Panoiu
to me to be the same individual who	2008 (Month/Year), Nicolae Panoiu, personally known executed the foregoing Assignment, and who acknowledged to of his own free will for the use and purposes therein set forth.
	WITNESS: QQ &
	Printed Name: GLAVDIV GHEDRGHE BIRIS
	Residential Address: 44 HOLDEN ROAD, FLAT 12, NIZ 7DN, LONDON, UK
	The state of the s

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RECORDED: 09/13/2012