501845035 03/07/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Wong Chee Cheong	04/01/2009
Lee Kwang Hong	04/01/2009
Husen Kartasamita Kang	04/01/2009
Filippo Romanato	04/01/2009
Gianluca Ruffato	04/01/2009

RECEIVING PARTY DATA

Name:	Nanyang Technological University		
Street Address:	50 Nanyang Avenue		
City:	Singapore		
State/Country:	SINGAPORE		
Postal Code:	639798		

Name:	University of Padua		
Street Address:	Via 8 Febbraio, 2		
City:	Padova		
State/Country:	ITALY		
Postal Code:	35122		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13255612

CORRESPONDENCE DATA

 Fax Number:
 (678)609-1483

 Phone:
 678-919-1075

 Email:
 bwb@bockpatent.com

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

via US Mail.

PATENT

REEL: 027822 FRAME: 0200

Correspondent Name: Bryan Bockhop

Address Line 1: 2375 Mossy Branch Dr
Address Line 4: Snellville, GEORGIA 30078

ATTORNEY DOCKET NUMBER: U003.P007U1

NAME OF SUBMITTER: Bryan W. Bockhop

Total Attachments: 5

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PATENT REEL: 027822 FRAME: 0201

THIS ASSIGNMENT is made the 1st day of APRIL 2009 BETWEEN

- (1) Wong Chee Cheong, Passport No. 710140528, citizen of the United States of America and residing at 52J Nanyang Heights, Singapore 639668,
- (2) Lee Kwang Hong, I.C.No. S8375250E, citizen of Malaysia and residing at Blk 628, Jurong West St. 65, #07-388 Singapore 640628,
- (3) Husen Kartasamita Kang, Passport No. G0205714Q, citizen of Indonesia and residing at Blk 747 Jurong West Street 73, #03-75 Singapore 640747 and
- (4) Filippo Romanato, Passport No. AA0452643, citizen of Italy and residing at Via Bellavista 42/2, 34151 Trieste, Italy,
- (5) Gianluca Ruffato, Passport No. AA3277041, citizen of Italy and residing at Via Valli 26, Santa Giustina in Colle, 35010 Padova, Italy,

(hereinafter referred to collectively as the "Assignors");

AND

- (3) **NANYANG TECHNOLOGICAL UNIVERSITY**, located at 50 Nanyang Avenue, Singapore 639798 ("NTU") and
- (4) **UNIVERSITY OF PADUA**, located at Via 8 Febbraio, 2-35122 Padova Italy ("UNIPD") (hereinafter referred to collectively as the "Assignees").

WHEREAS:

- (A) The Assignors are the inventors of the invention titled "Sensitivity enhancement in grating coupled surface plasmon resonance by azimuthal control" (hereinafter referred to as the "Invention"), as referenced in the intellectual property agreement dated 10 February 2009 between NTU and UNIPD, and disclosed to NTU in the Technology Disclosure form dated 4 December 2008 (ITTO Ref: TD/080/08), for which a US provisional patent application has been filed, details of which are set out in Schedule 1 attached hereto (hereinafter referred to as the "Application").
- (B) The Assignors have agreed to assign all their right, title and interest throughout the world in and to the intellectual property rights to the Invention and the Application to the Assignees, and the Assignees have agreed to accept the assignment of the aforesaid intellectual property rights on the terms and conditions as set out below.

NOW THEREFORE the parties agree as follows:

1. In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, the Assignors hereby sell, transfer and assign to the Assignee free from encumbrances, the Assignors' full and exclusive benefit and entire rights, title, interest and benefits throughout the world in and to:

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- (a) the Invention and all intellectual property rights in and to the Invention, including rights relating to know how, copyright, design, layout design of integrated circuits, tangible research property, computer software, trade mark and any other industrial or intellectual property rights, registrable, registered or otherwise;
- (b) the Application and any patent applications that have been or shall be filed in Singapore and all foreign countries based in whole or in part on the Application, Invention, including any United States patent applications (including provisional, non-provisional, divisional, continuing, or reissue applications), and any and all patents (including extensions thereof) of any country which have been or may be granted on any of the aforesaid patent applications, Invention or any part thereof (hereinafter collectively referred to as the "Patents"); and
- (c) all rights and powers arising or accrued from the assigned intellectual property rights hereunder, including the right to recover and take all such proceedings as may be necessary for the recovery of damages and/or other remedies in respect of all infringements whether committed before or after the date of this Assignment and to have the benefit of any remedy obtained on any infringement or alleged infringement before the date of this Assignment;

to be held and enjoyed by the Assignees, their successors and assign, as fully and entirely as the same would have been held and enjoyed by the Assignors had no sale, transfer or assignment of such interest been made.

- 2. The Assignors hereby jointly and severally agree for themselves and their respective heirs, executors and administrators, to execute without further consideration when requested and at the expense of the Assignee, any further lawful documents and any further assurances, including oaths, assignments and powers of attorney, that may be deemed necessary by the Assignees to fully secure to the Assignees their interest in and to the Invention or any part thereof, and in and to the Patents.
- 3. The Assignors hereby authorise and request the Commissioner of Patents of the United States of America to issue any and all United States patents which may be granted upon any United States patent applications based in whole or in part on the Application or upon the Invention or any part thereof.
- 3. The Assignors hereby jointly and severally agree to provide all information and render all assistance to the Assignees in all phases of the Patents.
- 4. The Assignors hereby jointly and severally warrant that, as far as they are aware, they have not done anything whereby the rights assigned under this Assignment might be invalidated or registration of them refused. The Assignors hereby jointly and severally covenant for themselves and their respective legal representatives that no right or license has been granted to make, use or sell the Invention to anyone except the Assignees, that prior to the execution of this Assignment the right, title and interest in the Invention had not been otherwise encumbered, and that no instrument will be executed in conflict herewith.
- 5. The Assignors waive all moral rights to which they are entitled throughout the world in respect of any copyright subsisting in all works relating to the Invention.
- In this Assignment, except where the context indicates the contrary:

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- (a) words importing the singular shall include the plural and vice versa, and words denoting a given gender shall include each other gender; and
- (b) all schedules and attachments to this Assignment form part of this Assignment.
- 7. This Assignment shall be governed by the laws of Singapore and the parties hereby submit to the exclusive jurisdiction of the courts of Singapore.
- 8. This Assignment shall be effective as of 1 April 2009.

IN WITNESS WHEREOF the parties have hereto set their hands the day and year first above written.

SIGNED BY

Wong Chee Cheong

in the presence of:-

Name: GRIC

GRIC NG CHIN HONG

SIGNED BY

Lee Kwang Hong

in the presence of:/

Name:

ONG BUEN YANG

SIGNED BY

Husen Kartasamita Kang

in the presence of:-

Name:

ONG DUEN YANG.

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Filippo Romanato)	Lilips housest
in the presence of:-	,	• •
Andrea Bert Name: ANDREA BERTI		
Name: ANDREA BERTI		
SIGNED BY)	0 0
Gianluca Ruffato)	godien Phiffit
in the presence of:-	,	·V
Andrea Berti Name: ANDREA BERTI		
Name: ANDREA BERTI		
SIGNED for and on behalf of	\	Λ 4 Λ · · · · · · · · · · · · · · · · ·
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NANYANG TECHNOLOGICAL UNIVERSITY)	Stein ihr Ch
NANYANG TECHNOLOGICAL UNIVERSITY in the presence of:-))	ALEX H.C.YU Ph.D
))	0
in the presence of:- Name: SEE WOON LOON Assistant Manager))	ALEX H.C.YU Ph.D Director
in the presence of:- Name: SEE WOON LOON Assistant Munager Innovation & Technology Transfer Office)	ALEX H.C.YU Ph.D Director
in the presence of:- Name: SEE WOON LOON Assistant Manager)	ALEX H.C.YU Ph.D Director
in the presence of:- Name: SEE WOON LOON Assistant Manager Innovation & Technology Transfer diffice SIGNED for and on behalf of UNIVERSITY OF PADUA in the presence of:- IL DIRETTORE AMMINISTRATIVO Giusedpo Carbieri)	ALEX H.C.YU Ph.D Director
in the presence of:- Name: SEE WOON LOON Assistant Manager Innovation & Technology Transfer Office SIGNED for and on behalf of UNIVERSITY OF PADUA in the presence of:- IL DIRETTORE AMMINISTRATIVO Giuseppe Carbieri Name:))))	ALEX H.C.YU Ph.D Director
in the presence of:- Name: SEE WOON LOON Assistant Manager Innovation & Technology Transfer diffice SIGNED for and on behalf of UNIVERSITY OF PADUA in the presence of:- IL DIRETTORE AMMINISTRATIVO Giusedpo Carbieri)	ALEX H.C.YU Ph.D Director
in the presence of: Name: SEE WOON LOON Assistant Munager Innovation & Technology Transfer diffice SIGNED for and on behalf of UNIVERSITY OF PADUA in the presence of: IL DIRETTORE AMMINISTRATIVO Giuseppe Garbieri Name: ANDREA)	ALEX H.C.YU Ph.D Director

Assignment – Joint Owners

MINUTA

II Capo Servizio

PATENT Transfer Office
REEL: 027822 FRAME* 0

SCHEDULE 1

APPLICATION

Country	Application Number	Title	Filing Date
United States of America	61/158,940	Sensitivity enhancement in grating coupled surface plasmon resonance by azimuthal control	10 March 2009

Assignment - Joint Owners

RECORDED: 03/07/2012

PATENS Technology Transfer Office REEL: 027822 FRAME: 0206