PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Frederic A. BOURKE Jr.	01/28/2011
Zakaryae FATHI	12/23/2010
lan Nicholas STANTON	12/16/2010
Michael J. THERIEN	12/30/2010
Paul R. STAUFFER	12/14/2010
Paolo MACCARINI	12/14/2010
Katherine S. HANSEN	12/15/2010
Diane R. FELS	12/14/2010
Cory R. WYATT	12/16/2010
Mark W. DEWHIRST	12/15/2010

RECEIVING PARTY DATA

Name:	IMMUNOLIGHT, LLC
Street Address:	1901 St. Antoine Street
Internal Address:	6th Floor at Ford Field
City:	Detroit
State/Country:	MICHIGAN
Postal Code:	48226

Name:	DUKE UNIVERSITY
Street Address:	2020 W. Main Street
Internal Address:	Suite 10
City:	Durham
State/Country:	NORTH CAROLINA
Postal Code:	27705

PROPERTY NUMBERS Total: 1

Property Type	Number

PATENT || REEL: 025723 FRAME: 0477

Application Number: 12943787

CORRESPONDENCE DATA

Fax Number: (703)413-2220

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

Phone: (703) 413-3000

Email: tclemons@oblon.com

Correspondent Name: Oblon, Spivak, et al.

Address Line 1: 1940 Duke Street

Address Line 4: Alexandria, VIRGINIA 22314

ATTORNEY DOCKET NUMBER: 371563US23X

NAME OF SUBMITTER: Toben R. Clemons

Total Attachments: 8

source=371563USasn#page1.tif source=371563USasn#page2.tif source=371563USasn#page3.tif source=371563USasn#page4.tif source=371563USasn#page5.tif source=371563USasn#page6.tif source=371563USasn#page7.tif source=371563USasn#page8.tif

> PATENT REEL: 025723 FRAME: 0478

Assignment of Application

INSERT NAMES AND RESIDENCE ADDRESS OF THE INVENTORS:

WHEREAS, I (WE)	1) Frederic A. BOURKE, Jr., Greenwich, Connecticut
	2) Zakaryae FATHI, Raleigh, North Carolina (Both of which are assigned to IMMUNOLIGHT,
	LLC)
	1) Ian N. STANTON, Durham, North Carolina
	2) Michael J. THERIEN, Durham, North Carolina
	3) Paul R. STAUFFER, Durham, North Carolina
	4) Paolo MACCARINI, Durham, North Carolina
	5) Katherine S. HANSEN, Cary, North Carolina
	6) Diane R. FELS, Morrisville, North Carolina
	7) Cory R. WYATT, Durham, North Carolina
	8) Mark W. DEWHIRST, Durham, North Carolina (All of which are assigned Duke University)
	, respectively
1.	1 C1' UR AND DONNI CONTENCION OVCETEMO FOR
	in new and useful improvements in: UP AND DOWN CONVERSION SYSTEMS FOR
	EMITTED LIGHT FROM VARIOUS ENERGY SOURCES INCLUDING RADIO
FREQUENCY, MIC	CROWAVE ENERGY AND MAGNETIC INDUCTION SOURCES FOR UPCONVERSION
(Application No1	2/943,787 , filed November 10, 2010), and
WHEREAS.) IMMUNOLIGHT, LLC and 2) DUKE UNIVERSITY

INSERT NAME AND ADDRESS OF COMPANY OR OTHER ASSIGNEE

INSERT TITLE OF INVENTION:

(hereinafter referred to as "ASSIGNEE") having a place of business at: 1) 1901 St. Antoine Street, 6th Floor at Ford Field, Detroit, Michigan 48226 and 2) 2020 W. Main Street, Suite 10, Durham, North Carolina 27705 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: 1/28/11	The second	a. Bel	
	(Signature of Inventor)	Frederic A. BOURKE, A.	
Date:	_		_
	(Signature of Inventor)	Zakaryae FATHI	
Date:			
	(Signature of Inventor)	Ian Nicholas STANTON	
Date:			
	(Signature of Inventor)	Michael J. THERIEN	
Date:			
	(Signature of Inventor)	Paul R. STAUFFER	
Date:			
	(Signature of Inventor)	Paolo MACCARINI	
Date:			
	(Signature of Inventor)	Katherine S. HANSEN	
Date:			
	(Signature of Inventor)	Diane R. FELS	
Date:	_		_
	(Signature of Inventor)	Cory R. WYATT	
Date:			
	(Signature of Inventor)	Mark W DEWHIRST	

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Assignment of Application

SERT NAMES	WHEREAS, I (WE)	1) Frederic A. BOU	RKE, Jr., Greenwi	ch, C	onnecticut	
ND RESIDENCE DDRESS OF		2) Zakaryae FATHI	, Raleigh, North C	arolir	a (Both of which are assigned to IMMU	MOLIGHT,
IE INVENTORS:		LLC)				-
		1) Ian N. STANTO	N, Durham, North	Carol	ina	
		2) Michael J. THER	UEN, Durham, No	rth Ca	rolina	
		3) Paul R. STAUFF	ER, Durham, Nort	h Car	olina	
		4) Paolo MACCAR	INI, Durham, Nor	h Cai	olina	
		5) Katherine S. HA	NSEN, Cary, Nort	a Car	olina	
		6) Diane R. FELS, I	Morrisville, North	Carol	ina	
		7) Cory R. WYATT	Γ, Durham, North (Caroli	na	
		8) Mark W. DEWH	IRST, Durham, No	orth C	arolina (All of which are assigned Duke	e University)
						, respectively
	have invented certa	in new and useful im	provements in: U	P AN	D DOWN CONVERSION SYSTEMS	FOR
NSERT TITLE OF NVENTION:			•		RGY SOURCES INCLUDING RADIO	
					NDUCTION SOURCES FOR UPCON	
	(Application No.				November 10, 2010), and
	WHEREAS,_	1) IMMUNOLIGHT	, LLC and 2) DUK	<u>E UN</u>	IVERSITY	
NSERT NAME						

INSERT NAME AND A DDRESS OF COMPANY OR OTHER ASSIGNEE

(hereinafter referred to as "ASSIGNEE") having a place of business at: 1) 1901 St. Antoine Street, 6th Floor at Ford Field, Detroit, Michigan 48226 and 2) 2020 W. Main Street, Suite 10, Durham, North Carolina 27705 is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all officials are Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

07/09

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date:				
•		(Signature of Inventor)	Frederic A BOURKE, Jr.	
Date:	12-23-10	2		
		(Signature of Invertor)	Zakaryae FATHI	
Date:		Q-		
		(Signature of Inventor)	Ian Nicholas STANTON	
Date:	<u> </u>			
		(Signature of Inventor)	Michael J. THERIEN	
Data				
Daw.		(Signature of Inventor)	Paul R. STAUFFER	
D-4				
Date:		(Signature of Inventor)	Paolo MACCARINI	
Date:				
Date.		(Signature of Inventor)	Katherine S. HANSEN	
Date:				
		(Signature of Inventor)	Diane R. FELS	
Date:				
		(Signature of Inventor)	Cory R. WYATT	
Date:				
		(Signature of Inventor)	Mark W. DEWHIRST	

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

Assignment of Application

WHEREAS, I (WF) 1) Frederic A. BOURKE, Jr., Greenwich, Connecticut 2) Zakaryae FATHI, Raleigh, North Carolina (Both of which are assigned to IMMUNOLIGHT, 1) Ian N. STANTON, Durham, North Carolina 2) Michael J. THERJEN, Durham, North Carolina 3) Paul R. STAUFFER, Durham, North Carolina 4) Paolo MACCARINI, Durham, North Carolina 5) Katherine S. HANSEN, Cary, North Carolina 6) Diane R. FELS, Morrisville, North Carolina 7) Cory R. WYATT, Durham, North Carolina 8) Mark W. DEWHIRST, Durham, North Carolina (All of which are assigned Duke University) have invented certain new and useful improvements in: <u>UP AND DOWN CONVERSION SYSTEMS FOR</u> 151. ET 1/11 OF PRODUCTION OF EMITTED LIGHT FROM VARIOUS ENERGY SOURCES INCLUDING RADIO FREQUENCY, MICROWAVE ENERGY AND MAGNETIC INDUCTION SOURCES FOR UPCONVERSION , filed November 10, 2010 _), and (Application No. 12/943,787 WHEREAS, 1) IMMUNOLIGHT, LLC and 2) DUKE UNIVERSITY (hereinafter referred to as "ASSIGNEE") having a place of business at: 1) 1901 St. Antoine Street, 6th Floor at Ford Field, Detroit, Michigan 48226 and 2) 2020 W. Main Street, Suite 10. Durham, North Carolina 27705 is destrous of

acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territonal possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the enure right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when grunted, to said ASSIGNEE as the assignce of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE. its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

07:09

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street. Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date,		
	(Signature of Inventor)	Frederic A. BOURKE, Jr.
Date:		
	(Signature of Inventor,	Zukaryae FATHI
Date: 16 Dec 2010	de	4. She
	(Signature of Inventor)	Ian Nicholas STANTON
Date 30 Dec. 20/6	Mack	in lifthan
	Originature of Inventors	Michael THERIEN
Date:	,	V
Date.	(Signature of Inscisor)	Paul R. STAUFFER
Date:		
Date	(Signature of Inventor)	Paolo MACCARINI
Date:		
	(Signature of Inventor)	Katherine S. HANSEN
Date:		
	(Signature of Inventor)	Diane R. FELS
Date.		
terminature	(Signature of Inventor)	Cory R. WYATT
Date		
	(Signature of Inventor)	Mark W. DEWHIRST

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

07/09

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date			
		(Signature of Inventor)	Frederic A. BOURKE, Jr.
Date:			
		(Signature of Inventor)	Zakaryae FATHI
Date:			
		(Signature of Inventor)	Ian Nicholas STANTON
Date:			
***********		(Signature of Inventor)	Michael J. THERIEN
Date	12/14/10		Paul R. Starth
		(Signature of Inventor)	Paul R. STAUFFER
Date:	12/14/2010		Paolo MACCARINI
	1 '/	(Signature of Inventor)	Paolo MACCARINI
Date:			
		(Signature of Inventor)	Katherine S. HANSEN
Date:			
	,	(Signature of Invertor)	Diane R. FELS
Date:	12/16/10		
		(Signature of Inventor)	Cory R. WYATT
Date:			
		(Signature of Inventor)	Mark W. DEWHIRST

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.I..P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date:		
	(Signature of Inventor)	Frederic A. BOURKE, Jr.
Date:		
	(Signature of laventor)	Zakaryae FATHI
Date:		
	(Signature of Inventor)	Ian Nicholas STANTON
Date:		
	(Signature of Inventor)	Michael J. THERIEN
Date:		
	(Signature of Inventor)	Paul R. STAUFFER
Date:		
	(Signifier of Inventor)	Paolo MACCARINI
Date: /2/15/10	Bak	aller
Date: 12/15/10	(Signature of Inventor)	Katherine S. HANSEN
Date: 12/14/10	diane	r. les
	(Signature of Inventor)	Diane J. FELS
Date:		<i>_</i>
	(Signature of Inventor)	Cory R. WYATT
Date: / 2 15)10	$\underline{\hspace{1cm}}$ \mathcal{M}	M
	(Signature of Inventor)	Mark W. DEWHIKST

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

07/09

PATENT REEL: 025723 FRAME: 0486

RECORDED: 01/31/2011