## 502759746 04/09/2014

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT		

#### **CONVEYING PARTY DATA**

Name	Execution Date
QIU-HONG HU	04/04/2014
SHANG-RAY YANG	04/03/2014
KJELL BOHLIN	04/01/2014

### **RECEIVING PARTY DATA**

Name:	LIGHTLAB SWEDEN AB	
Street Address:	ÖSTERMALMSTORG 1	
City:	STOCKHOLM	
State/Country:	SWEDEN	
Postal Code:	SE-114 42	

### **PROPERTY NUMBERS Total: 1**

Property Type	Number		
PCT Number:	EP2012069787		

### **CORRESPONDENCE DATA**

Fax Number:

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US Mail.

**Phone:** 2694656603

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Correspondent Name: ANDREW BABCOCK

Address Line 1: PO BOX 488

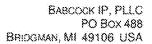
Address Line 4: BRIDGMAN, MICHIGAN 49106

ATTORNEY DOCKET NUMBER:	14039	
NAME OF SUBMITTER:	ANDREW BABCOCK	
SIGNATURE:	/Andrew Babcock/	
DATE SIGNED:	04/09/2014	

## **Total Attachments: 3**

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PATENT 502759746 REEL: 032633 FRAME: 0457





ASSIGNMENT		BIP Docket No.: 14039	
Whereas, I/We.	······	<u>L</u>	
Qiu-Hong HU Sveagatan 2C SE-413 14 Göteborg Sweden	Shang-Ray YAN Floor 2, No. 20, Lane 12, Sec. 3 TW-Taipei City Taiwan	Alley 17,	Kjell BOHLIN Statarvägen 2 SE-756 45 Uppsala Sweden
hereafter referred to as "assignor", have in	vented certain new	and useful improv	rements in:
METHOD FOR MANUFACTURIN LIGHTING ARRANGEMENT	IG NANOSTRUC	TURES AND CA	THODE FOR FIELD EMISSION
for which an application for a PCT I PCT/EP2012/069787.	International Applic	ation was filed on t	5 October 2012, Application Number
for which an application for a United Whereas.	d States Patent wa	s executed on	
Vitereas, Lightlab Sweden AB Östermalmstorg 1 SE-114 42 Stockholm			
hereafter referred to as "assignee" is desire	ous of acquiring the	entire right, title a	nd interest in the same.
Now, therefore, in consideration of good ar assignor(s), by these presents do sell, assignor(s), by the end of the states reissues, substitutes, renewals or continual the Patent Cooperation Treaty and the Pariand request the Commissioner of Patent are entire right, title, and interest in and to the strepresentatives, to the full end of the term amay be granted, as fully and entirely as the been made.  Further, it is agreed that, when requested, the execute all divisional, continuing, substitute and generally do everything possible which proper patent protection.	gn and transfer un- nents which are dis Patents which may tions thereof, and to is Convention for the nd Trademarks to is same, for his sole to and any applicable is same would have without charge to be, renewal, and reis	to said assignee the closed in the applic by the granted thereful to all beneful to and behoof; and statutes of limitatic been held by applicated at the expense cut at the expense cut at the expense cut at the expense all consider desirable.	e full and exclusive worldwide right, title cation and the entire right, title and ore and any and all extensions, divisions, fits to any international applications under dustrial Property. I/We hereby authorize tates Patent(s) to said assignee, of the d for the use and behoof of his legal ons of enforceability for which said Patent icant had this assignment and sale not of said Assignee, the undersigned will tions; execute all rightful other papers;
	c.		
WITNESSES WARD			
Note: Signatures of all the inventors or assignees of re than one signature is required. See below.	ecord of the entire intere	st or their representativ	re(s) are required. Submit multiple forms if more
* Total of Forms are submitted.			

PATENT REEL: 032633 FRAME: 0458



ASSIGNMENT		BIP Docket No.: 14039			
Whereas, I/We,	••••••	t			
Qiu-Hong HU Sveagatan 2C SE-413 14 Göteborg Sweden	Shang-Ray YAN Floor 2, No. 20, Lane 12, Sec. 3 TW-Taipei City Taiwan	Alley 17,	Kjell BOHLIN Statarvägen 2 SE-756 45 Uppsala Sweden		
hereafter referred to as "assignor", have in	vented certain new	and useful improv	ements in:		
METHOD FOR MANUFACTURIN LIGHTING ARRANGEMENT	METHOD FOR MANUFACTURING NANOSTRUCTURES AND CATHODE FOR FIELD EMISSION LIGHTING ARRANGEMENT				
☐ for which an application for a PCT PCT/EP2012/069787.	International Applic	ation was filed on	5 October 2012, Application Number		
I for which an application for a Unite Whereas,	d States Patent wa	is executed on			
Lightlab Sweden AB					
Östermalmstorg 1					
SE-114 42 Stockholm	on kalinnan on kaladen zo ekki.	::::::::::::::::::::::::::::::::::::::	**********************************		
hereafter referred to as "assignee" is desir-	ous of acquiring th	e entire right, title a	ind interest in the same.		
assignor(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive worldwide right, title and interest in and to any and all improvements which are disclosed in the application and the entire right, title and interest in and to any and all United States Patents which may be granted therefore and any and all extensions, divisions, reissues, substitutes, renewals or continuations thereof, and the right to all benefits to any international applications under the Patent Cooperation Treaty and the Paris Convention for the Protection of Industrial Property. I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent(s) to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term and any applicable statutes of limitations of enforceability for which said Patent may be granted, as fully and entirely as the same would have been held by applicant had this assignment and sale not been made.  Further, it is agreed that, when requested, without charge to but at the expense of said Assignee, the undersigned will execute all divisional, continuing, substitute, renewal, and reissue patent applications; execute all rightful other papers; and generally do everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection.  Date Executed:  at:					
ASSIGNORS(S): Llang Ray Yang					
WITNESSES:					
Note: Signatures of all the inventors or assignees of than one signature is required. See below*.	record of the entire inte	rest or their represental	ive(s) are required. Submit multiple forms if more		
* Total of Forms are submitted.		•••••			

PATENT REEL: 032633 FRAME: 0459

BABCOCK IP, PLLC PO BOX 488 BRIDGMAN, MI 49106 USA



RECORDED: 04/09/2014

Whereas, kWe,  Qiu-Hong HU  Shang-Ray YANG  Negatan 2C  SE-413 14 Göteborg  Sweden  TW-Taipel City  Taiwan  Inereafter referred to as "assignor", have inverted certain new and useful improvements in:  METHOD FOR MANUFACTURING NANOSTRUCTURES AND CATHODE FOR FIELD EMISSION  LIGHTING ARRANGEMENT  Of or which an application for a POT Internetional Application was filed on 5 October 2012, Application Number PCPT/EP2012/089797.  If or which an application for a United States Patent was executed on Whereas,  Lightlab Sweden AB  Ostermalimstorg i  SE-114 42 Stockholm  Now, therefore, in consideration of good and valuable consideration the receipt whereof is exknowledged, I/We, the assignore's by these presented do self, assign and transfer unto said assignees the full and exclusive worldwide right, title and enterest in and to any and all inlined states Patent within an effected on any and all extensions, divisions, resistance, substitutes, receivals or continuations thereof in the application and the entire right, title and refers to any and all inlined states Patent within an disclosed in the application and the entire right, title and refers to any and all extensions, divisions, resistance, substitutes, receivals or continuations thereof has the repetite of the application and the entire right, title and interest in and to any and all indirect states period in the receipt where of any and all extensions, divisions, resistance, substitutes, receivals or continuations thereof in the light to all benefits to any international applications under the Patent Cooperation Treaty and the Patric London of the Patric Cooperation Treaty and the Patric London of the Patric Cooperation Treaty and the Patric London of the Indian and Extensions, continuing, substitute, renewal and only applicable statutes of imitations of enforced biful of the hadden and generated to everything possible which said Assignees shall consider desirabl	ASSIGNMENT		BIP Docket No.: 14039		
Sveagatan 2C SE-413 14 Göteborg Lane 12, Sec. 3, Ba-Der Road SE-756 45 Uppsala TW-Talpei City Sweden Talwan hereafter referred to as "assignor", have invented certain new and useful improvements in: METHOD FOR MANUFACTURING NANOSTRUCTURES AND CATHODE FOR FIELD EMISSION LIGHTING ARRANGEMENT  for which an application for a PCT International Application was filed on 5 October 2012, Application Number PCT/EP2012/093787.  or the which an application for a United States Patent was executed on Whereas, Lightlab Sweden AB Ostermalmstorg 1 SE-114 42 Stockholm hereafter referred to as "assignee" is desirous of acquiring the entire right, title and interest in the same.  Now, therefore, in consideration of good and valuable consideration the receipt whereof is acknowledged, I/We, the assignor(s), by these presents do self, assign and transfer unto said assignee the full and exclusive worldwide right, title and interest in and to any and all United States plants which may be granted therefore and any and all extensions, divisions, reissues, substitutes, renewals or continuations thereof, and the right to all benefits to any international applications under the Patent Cooperation Treaty and the Paris Cornvention for the Protection of Industrial Property. I/We hereby authorize and request the Commissioner of Patent and Trademarks to seue as all United States Plant(s) to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof, and for the use and behoof of his legan- greysentatives, to the full end of the term and any application states of unital states and the applications; and events the Commissioner of Patent and Trademarks to seue as ultimated States Plant(s) to said assignme, of the entire right, title, and interest in and to the same, for his sole use and behoof, and for the use and behoof of his legan- proper patent protection.  Date Executed:  Office of the Patent and Arademarks to sele as all united States Plant(s) to said easignme, of the entire right, title, and inter	Where	eas, I/We,		J	
METHOD FOR MANUFACTURING NANOSTRUCTURES AND CATHODE FOR FIELD EMISSION LIGHTING ARRANGEMENT  ☐ for which an application for a PCT international Application was filed on 5 October 2012, Application Number PCT/EP2012/089787. ☐ for which an application for a United States Patent was executed on Whereas, Lightlab Sweden AB  Ostermalmstorg 1  SE-1114 42 Stockholm  hereafter referred to as "assignee" is desirous of acquiring the entire right, title and interest in the same.  Now, therefore, in consideration of good and valuable consideration the receipt whereof is acknowledged, I/We, the assignor(s), by these presents do self, assign and transfer unto said assignee the full and exclusive worldwide right, title and interest in and to any and all United States Patents which may be granted therefore and any and all extensions, divisions, relissues, substitutes, renewals or continuations thereof, and the right to all benefits to any international applications under the Patent Cooperation Treaty and the Paris Convention for the Protection of Industrial Property. I/We hereby authorize and request the Commissioner of Patent and Trademarks to saue said United States Patent(s) to said assignment and request the Commissioner of Patent and Trademarks to saue said United States Patent(s) to said assignment the entire right, title, and interest in and to the same, for his sole use and behoof, and for the use and behoof of his legal representatives, to the full end of the term and any applicable statutes of limitations of enforceability for which said Patent may be granted, as fully and entirely as the same would have been field by applicant had this assignment and all patent may be granted, as fully and entirely as the same would have been field by applicant had this assignment and asia not been made.  Further, it is agreed that, when requested, without charge to but at the expense of said Assignee, the undersigned will execute all divisional, continuing, substitute, renewal, and release to patent applications; execute all right	9	Sveagatan 2C SE-413 14 Göteborg	Floor 2, No. 20, Lane 12, Sec. 3 TW-Taipei City	Alley 17,	Statarvägen 2 SE-756 45 Uppsala
LIGHTING ARRANGEMENT  for which an application for a PCT International Application was filed on 5 October 2012, Application Number PCT/EP2012/069787.  for which an application for a United States Patent was executed on Whereas, Lightlab Sweden AB Östermalmstorg 1 SE-114 42 Stockholm hereafter referred to as "assignee" is desirous of acquiring the entire right, title and interest in the same.  Now, therefore, in consideration of good and valuable consideration the receipt whereof is acknowledged, I/We, the assignor(s), by these presents do self, assign and transfer unto said assignee the full and exclusive worldwide right, title and interest in and to any and all improvements which are disclosed in the application and the entire right, title and interest in and to any and all United States Patents which may be granted therefore and any and all extensions, divisions, reissues, substitutes, renewals or continuations thereof, and the right to all benefits to any international applications under the Patent Cooperation Treaty and the Patent Convention for the Protection of Industrial Property. IWWe hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patents(s) to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof, and for the use and behoof his legal representatives, to the full end of the term and any applicable statutes of ilmitations of enforceability for which said Patent may be granted, as fully and entirely as the same would have been held by applicant had this assignment and sale not been made.  Further, it is agreed that, when requested, without charge to but at the expense of said Assignee, the undersigned will execute all divisional, continuing, substitute, renewal, and reissue patent applications; execute all rightful other papers; and generally do everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection.  Date Executed:  ASSIGNORS(S)	hereal	ter referred to as "assignor", have in	vented certain new	and useful improv	rements in:
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execute all divisional, continuing, substitute, renewal, and reissue patent applications; execute all rightful other papers; and generally do everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection.  Date Executed: Columbia at: Upsala  ASSIGNORS(S)  WITNESSES:  Note: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. See below.	assign and int interes reissue the Pa and re- entire i repress may be been n	or(s), by these presents do sell, asserest in and to any and all improvent in and to any and all United States as, substitutes, renewals or continuatent Cooperation Treaty and the Parquest the Commissioner of Patent a light, title, and interest in and to the entatives, to the full end of the term a granted, as fully and entirely as the nade.	ign and transfer un nents which are dis Patents which may tions thereof, and to is Convention for the nd Trademarks to is same, for his sole to and any applicable to same would have	to said assignee the closed in the applic y be granted thereful he right to all beneful e Protection of Industries and behoof; and statutes of limitation been held by applications.	e full and exclusive worldwide right, title cation and the entire right, title and ore and any and all extensions, divisions, fits to any international applications under lustrial Property. I/We hereby authorize tates Patent(s) to said assignee, of the d for the use and behoof of his legal ons of enforceability for which said Patent cant had this assignment and sale not
ASSIGNORS(S):  WITNESSES:  Note: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. See below'.	execute and ge	e all divisional, continuing, substitute nerally do everything possible which	e, renewal, and reis	sue patent applicat	tions; execute all rightful other papers;
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PATENT REEL: 032633 FRAME: 0460