506071151 05/21/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6117866

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEIYUN HUANG	05/06/2020
LIBIN LIU	05/06/2020
CHAO ZENG	05/06/2020
YAO HUANG	05/06/2020
MENG LI	05/06/2020
YUE LONG	05/06/2020

RECEIVING PARTY DATA

Name:	CHENGDU BOE OPTOELECTRONICS TECHNOLOGY CO., LTD.
Street Address:	NO. 1188 HEZUO RD., (WEST ZONE),
Internal Address:	HI-TECH DEVELOPMENT ZONE
City:	CHENGDU, SICHUAN
State/Country:	CHINA
Postal Code:	611731
Name:	BOE TECHNOLOGY GROUP CO., LTD.
Street Address:	NO. 10 JIUXIANQIAO RD., CHAOYANG DISTRICT
City:	BEIJING
State/Country:	CHINA
Postal Code:	100015

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16766094	

CORRESPONDENCE DATA

Fax Number: (516)228-8516

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

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 516-228-8484

Email: mleone@dilworthbarrese.com **Correspondent Name:** DILWORTH & BARRESE, LLP Address Line 1: 1000 WOODBURY ROAD

Address Line 2: **SUITE 405**

REEL: 052726 FRAME: 0479 506071151

PATENT

Address Line 4: WO	OODBURY, NEW YORK 11797	
ATTORNEY DOCKET NUMBER:	1734-635	
NAME OF SUBMITTER:	MICHAEL J. MUSELLA	
SIGNATURE:	/MJM/	
DATE SIGNED:	05/21/2020	
Total Attachments: 12		
source=ASSIGNMENT#page1.tif		
source=ASSIGNMENT#page2.tif		
source=ASSIGNMENT#page3.tif		
source=ASSIGNMENT#page4.tif		
source=ASSIGNMENT#page5.tif		
source=ASSIGNMENT#page6.tif		
source=ASSIGNMENT#page7.tif		
source=ASSIGNMENT#page8.tif		
source=ASSIGNMENT#page9.tif		
source=ASSIGNMENT#page10.tif		
source=ASSIGNMENT#page11.tif		
source=ASSIGNMENT#page12.tif		

***************************************	***************************************
Title of Invention	
As a below	named inventor, I hereby declare that:
This declar	ration
is directed	to: Fig. 17 The attached application, or
The above-i	United States application or PCT international application numberfiled ondentified application was made or authorized to be made by me.
	it I am the original inventor or an original joint inventor of a claimed invention
l hereby ack punishable (years, or bo	knowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) th.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to Changdu BOE Optoclectronics Technology Co., Ltd. ,having a place of business at No.1188 Hezuo Rd., (West Zone), Hi-tech Development Zone, Chengdu, Sichuan, 611731, P.R.China , and BOE TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 Jiuxiangiao Rd., Chaoyang District, Beijing 100015, P.R. China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/094270 filed on Jul.01,2019; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignce;

į

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Dilworth & Barrese LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME OF INVENTOR	
Inventor:Welyun HUANG	Date: May 6, 2020
 Signature: VVe? was HUANG	

d inventor, I hereby declare that:
The attached application, or United States application or PCT international application numberfiled on ad application was made or authorized to be made by me.
the original inventor or an original joint inventor of a claimed invention
dge that any willful false statement made in this declaration is 18 U.S.C. 1001 by fine or imprisonment of not more than five (5)

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to Chengdu BOE Optoelectronics Technology Co., Ltd. ,having a place of business at No.1188 Hezuo Rd., (West Zone), Hi-tech Development Zone, Chengdu, Sichuan, 611731, P.R.China , and BOE TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 Inixiangiao Rd., Chaoyang District, Beijing, 100015, P.R. China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/094270 filed on Jul.01,2019; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States:

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Dilworth & Barress</u>, <u>LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between ... the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME OF INVENTOR		
Inventor: Libin LIU Date: /	May, 6, 2020	*********************
Summure Libin LIU	2	

Title of Invention	
As a below named	inventor, I hereby declare that:
This declaration	
is directed to:	The attached application, or
	United States application or PCT international application numberfiled on
The above-identified	l application was made or authorized to be made by me.
believe that I am the high the believe that I am the lapplication.	e original inventor or an original joint inventor of a claimed invention
	ge that any willful false statement made in this declaration is BU.S.C. 1001 by fine or imprisonment of not more than five (5)

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to Changle BOE Optoelectronics Technology Co., Ltd. ,having a place of business at No.1188 Hezno Rd., (West Zone), Hi-tech Development Zone, Chengdu, Sichuan, 611731, P.R.China , and BOE TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 Jiuxiangiao Rd., Chaoyang District, Beijing 100015, P.R. China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to ____PCT/CN2019/094270 filed on Jul.01.2019; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

1

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Dilworth & Barrese</u>, <u>LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME OF INVENTOR	`
Inventor: Chao ZENG Date: 1484, 6, 2020	
Superior Clas 2ENG	

Title of Invention					
As a belov	v named inv	entor, I hereby decla	re that:		
This decla	ration				
is directed	to:	The attached applic	cation, or		
	f nı	United States applicumber			
The above-	identified ap	plication was made o	or authorized to be i	nade by me.	
l believe the in the applic		riginal inventor or an	original joint invent	or of a claimed invention	ì
	under 18 U.	nat any willful false s S.C. 1001 by fine or i			
	***************************************		***************************************		***

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to Chengdu BOE Optoelectronics Technology Co., Ltd. ,having a place of business at No.1188 Hezuo Rd., (West Zone), Hi-tech Development Zone, Chengdu, Sichuan, 611731, P.R.China , and BOE TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 Jiuxiangiao Rd., Chaoyang District, Beijing 100015, P.R. China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to ____PCT/CN2019/094270 filed on Jul.01,2019; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Dilworth & Barrese</u>, <u>LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME OF INVENTOR		
Invenior: Yao HUANG D.	me MM 6 , 3020	
Signature: You HUANG	:	
	***************************************	۰

i,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Title of Invention						
As a below na	med inventor, I hereby declare that:					
This declaration						
is directed to:	₩ The attached application, or					
The above-ide	United States application or PCT international application numberfiled on ntified application was made or authorized to be made by me.					
believe that I in the application	am the original inventor or an original joint inventor of a claimed invention on.					
	wledge that any willful false statement made in this declaration is ler 18 U.S.C. 1001 by fine or imprisonment of not more than five (5)					

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to Chengdu BOE Optoclectronics Technology Co., Ltd. ,having a place of business at No.1188 Hezuo Rd., (West Zone), Hi-tech Development Zone, Chengdu, Sichuan, 611731, P.R.China , and TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 Jiuxiangiao Rd., Chaoyang District, Beijing 100015, P.R. China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/094270 filed on Jul. 91.2019; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

ž

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominces of the Assignce.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Dilworth & Barrese</u>. <u>LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME OF INVENTOR	
Inventor: Meng LI	
 Signature: NOS LL	

inventor, I hereby declare that:
United States application or PCT international application numberfiled on I application was made or authorized to be made by me.
e original inventor or an original joint inventor of a claimed invention
ge that any willful false statement made in this declaration is U.S.C. 1001 by fine or imprisonment of not more than five (5)

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to Changdu BOE Optociacizanics Technology Co., Ltd. , having a place of business at No.1188 Hexas Rd., (West Zone), History Development Zone, Chengdu, Sichuan, 611731, P.R.China , and TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 Jiuxiangiao Rd., Chaoyang District, Beijing 100015, P.R., China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to ___PCT/CN2019/094270 filed on Jul.01.2019; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

1

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Dilworth & Barrese</u>, <u>LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

***************************************	LEGAL NAME OF INVENTOR					
	Inventor:Yue LONG	Date:	Mag	<i>(</i>	3030	*****************************
	Signature: Yue LONG		~			

,