# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4927322

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
JÖRG FRICKE	01/24/2018
GÖTZ ERBERT	02/12/2018
PAUL CRUMP	01/24/2018
JONATHAN DECKER	03/22/2018

## **RECEIVING PARTY DATA**

Name:	FORSCHUNGSVERBUND BERLIN E.V.	
Street Address:	RUDOWER CHAUSSEE 17	
City:	BERLIN	
State/Country:	GERMANY	
Postal Code:	12489	

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

Property Type	Number
Application Number:	15736631

### **CORRESPONDENCE DATA**

**Fax Number:** (212)808-0844

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.

using a lax number, in provided, in that is unsuccessial, it will be sent via of

**Phone:** 212-808-0700

**Email:** mferguson@nmmlaw.com

Correspondent Name: LONDA, BRUCE S.

Address Line 1: NORRIS MCLAUGHLIN & MARCUS P.A.

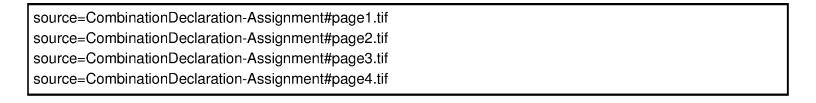
Address Line 2: 875 THIRD AVE, 8TH FLOOR
Address Line 4: NEW YORK, NEW YORK 10022

ATTORNEY DOCKET NUMBER:	101215-541 BSL
NAME OF SUBMITTER:	BRUCE S. LONDA
SIGNATURE:	/Bruce S. Londa/
DATE SIGNED:	04/23/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 4** 

PATENT REEL: 045609 FRAME: 0087

504880581



Norris McLaughlin & Marcus, P.A. Attorney Docket No.: 101215-541

COMBINATION D	ECLARATION (37 APPLICATION DAT	CFR 1.63) FOR I	JTILITY OR DI	ESIGN APPLICATION USING AN
Title of Invention	LASER DIODE WIT	"H DISTRIBUTED	FEEDBACK AN	D METHOD FOR PRODUCING
As the below named inv	ntor, I hereby declare	lhat <sup>*</sup>		
This declaration is direct		dentified application,	inr	
	☑ United State	es application 15/736	6.631	, filed on <u>December 14, 2017</u> or
	☐ PGT applica	tion number		, filed on or
The above-identified a	application was made o	r authorized to be m	ade hy me	
I believe that I am the	original inventor or an	original ioint inventor	not by mo.	ention in the application.
I hereby acknowledge imprisonment of not more	Inat any willful false st	atemant made in this	s declaration is pu	inishable under 18 U.S.C. 1001 by fine o
I hereby state that I had amended by any amendr	ave reviewed and unde ment specifically referre	erstand the contents of to above.		lified application, including the claims, as
acknowledge the dut continuation-in-part appli and the national or PCT i	y to disclose informatio cations, material inform nternational filing date o	on which is material to nation which became of the continuation in	e avaliable betwe	defined in 37 CFR 1.56, including further en the filing date of the prior application
rur good and valuable inventor has sold and as E.V., whose address is "Assignee"), its successo Letters Patent of the Unit whether joint or sole, disc applications that may be patents that may be grant	consideration, the recusioned, and by these parameters and by these parameters, legal representative as said states, filed as said spelications filed for United States and on the foregoing apparameters.	eipt and sufficiency presents hereby sall a 17, 12489, Berlir as and assigns, the application and to confor Letters Patent tor; plications and any replications and any replications and any research.	of which are he is and assigns, up to and assigns, up to the entire right, title the entire right, title the entire right, title the entire right, title and in any and any and all of salissue or extensions	ereby acknowledged, each undersigned into: FORSCHUNGSVERBUND BERLING Serman corporation (hereinafter named and interest in and to said invention for the le and interest in any and all inventions, all divisional or continuation or renewall diventions, and in and to any and all thereof.
I hereby authorize and	request the Commissio	oner of Patents to iss	ue any and all of	spid I siture Potent to said Applemen
to said consideration, to execute any and all Linecessary oaths, supplied application for the reissue Assignee, its successors,	I hereby agree upon to Inited States divisional mental paths or declar or extension of any Un legal representatives or	he request of said A l, continuation and i rations or suppleme iited States Letters F r assigns may deem	ssignee, its succe renewal application that declarations Patent that may be necessary or exp	assors, legal representatives or assigns, one for said invention, and any and all or affidavits relating thereto, and any granted upon said application that said adject
For the said considers assigns, in the event of sa or the reissue thereof, b successors, legal represer and producing evidence ecessary to obtain said.	ition. I further agree u aid application or any di ecoming involved in in ntatives or assigns in the in support thereof, I hatters Patent and use	pon the request of livision thereof, or Le interference, to coop the matters of prepa hereby agree to pe	said Assignee, it atters Patent issue perate to the bes ring and execution form upon such	ts successors, legal representatives or sed thereon or any reissue or application of my ability with said Assignee, its g the Preliminary Statement and giving request, any and all affirmative acts in said Assignee, its successors, legal enjoyed if this assignment and sale had
order to carry into full for	ce and effect the sale,	assignment and tran	or oiner papers an Sfer hereby made	in properly to execute without further and instruments which may be necessary to or intended or agreed to be made.
And for said considerating the title and interest in significant in significant in significant in connection will execute any and all douccessors, legal representations.	ons, I hereby assign to aid invention or improv legal representatives on any and all application icuments necessary to latives or assigns.	said Assignee, its sement for any and a property of assigns to executions for foreign Latter	iuccessors, legal all foreign countrie te any and all do	representatives and assigns, the entire es and agree upon the request of said ocuments that shall be required to be including the prosecution thereof, and one and patents in said Assignee, its
EGAL NAME OF INVENT				C 2 C 2
ventor: <u>PAUL CRUMP</u>		Date:	94-1-74	0175
gnature:	<u> </u>		89-1- 24 JAN 84	1,2018
ite: An application data she s form. Use an additional P	et (PTO/AIA/14 or equiv TO/SB/AIA01 form for a	esea salbuigasi (traiss	San Shirt and Shirt San	ntive entity, must accompany

Norris McLaughlin & Marcus, P.A.

COMPINATION DEGLADATION OF A TOTAL COMPINATION DEGLADATION OF THE PROPERTY OF
COMBINATION DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT
Title of Invention LASER DIODE WITH DISTRIBUTED FEEDBACK AND METHOD FOR PRODUCING
As the below named inventor, I hereby declare that:
This declaration is directed to:   The above-identified application, or
② United States application 15/736,631, filed on December 14, 2017 or
D PCT application number, filed on
The above-identified application was made or authorized to be made by me.
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.
I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above,
I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including further 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 application
For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto: FORSCHUNGSVERBUND BERLIN E.V., whose address is Rudower Chaussee 17, 12489, Berlin, Germany, a German corporation (hereinafter named "Assignee"), its successors, legal representatives and assigns, the entire right, title and interest in and to said invention for Letters Patent of the United States, filed as said application and to the entire right, title and interest in any and all inventions, whether joint or sole, disclosed in said application for Letters Patent, and in any and all divisional or continuation or renewal applications that may be filed for United States Letters Patent for any and all of said inventions, and in and to any and all patents that may be granted on the foregoing applications and any reissue or extension thereof.
I hereby authorize and request the Commissioner of Patents to issue any and all of said Letters Patent to said Assignee.
For said consideration, I hereby agree upon the request of said Assignee, its successors, legal representatives or assigns, to execute any and all United States divisional, continuation and renewal applications for said invention, and any and all necessary oaths, supplemental oaths or declarations or supplemental declarations or affidavits relating thereto, and any application for the reissue or extension of any United States Letters Patent that may be granted upon said application that said Assignee, its successors, legal representatives or assigns may deem necessary or expedient.
For the said consideration, I further agree upon the request of said Assignee, its successors, legal representatives or assigns, in the event of said application or any division thereof, or Letters Patent issued thereon or any reissue or application for the reissue thereof, becoming involved in interference, to cooperate to the best of my ability with said Assignee, its successors, legal representatives or assigns in the matters of preparing and executing the Preliminary Statement and giving and producing evidence in support thereof, I hereby agree to perform upon such request, any and all affirmative acts necessary to obtain said Letters Patent and vest all rights therein hereby conveyed in said Assignee, its successors, legal representatives or assigns as fully and entirely as the same would have been held and enjoyed if this assignment and sale had not been made.
I hereby bind myself, my heirs, legal representatives, administrators, and assign properly to execute without further consideration, any and all applications, petitions, oaths, assignments or other papers and instruments which may be necessary in order to carry into full force and effect the sale, assignment and transfer hereby made, or intended or agreed to be made.
And for said considerations, I hereby assign to said Assignee, its successors, legal representatives and assigns, the entire right, title and interest in said invention or improvement for any and all foreign countries and agree upon the request of said Assignee, its successors, legal representatives or assigns to execute any and all documents that shall be required to be executed in connection with any and all applications for foreign Letters Patent therefor, including the prosecution thereof, and to execute any and all documents necessary to invest title in said foreign applications and patents in said Assignee, its successors, legal representatives or assigns.
LEGAL NAME OF INVENTOR
Inventor: GÖTZ ERBERT Date: 12 - 11. 2018 Signature:
Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/SB/AIA01 form for each additional inventor.

Norris McLaughlin & Marcus, P.A.

COMBINATION DEC	A CAN TO MAN TO A CONTRACT A STATE OF THE A CONTRACT A STATE OF THE A CONTRACT A STATE OF THE A CONTRACT A CON	Attorney Docket No.: 101215-54
AP	PLICATION (37 CFR 1.63) FOR UTILIT PLICATION DATA SHEET (37 CFR 1.	Attorney Docket No.: 101215-54 TY OR DESIGN APPLICATION USING AN
Title of Invention L.	SER DIODE WITH DISTRIBUTED FEEDI	BACK AND METHOD FOR PRODUCING
As the below named invento	r, I hereby declare that	
This declaration is directed (	o: O The above-identified application, or	
	☑ United States application 15/736.631	, filed on <u>December 14, 2017</u> or
	☐ PCT application number	filed on
The above-identified appl	cation was made or authorized to be made by	me
believe that I am the orig	inal inventor or an original joint inventor of a cl	simed invention in the application
imprisonment of not more the	t any willful false statement made in this declar in five (5) years, or both.	ration is punishable under 18 U.S.C. 1001 by fine or
I hereby state that I have amended by any amendmen	reviewed and understand the contents of the a specifically referred to above,	above-identified application, including the claims, as
I acknowledge the duty to confinuation-in-part application and the national or PCT inter	disclose information which is material to paten ons, material information which became availa national filing date of the continuation in part of	ntability as defined in 37 CFR 1.56, including further able between the filing date of the prior application
Tor good and valuable con inventor has sold and assign E.V., whose address is R. Assignee"), its successors, letters Patent of the United the their joint or sole, disclosupplications that may be filed attents that may be granted contents that may be granted contents that may be granted or sole.	sideration, the receipt and sufficiency of whited, and by these presents hereby sells and a state of the control of the contro	ich are hereby acknowledged, each undersigned assigns, unto: FORSCHUNGSVERBUND BERLIN nany, a German corporation (hereinafter named right, title and interest in and to said invention for ire right, title and interest in any and all inventions, in any and all divisional or continuation or renewal did all of said inventions, and in and to any and all ir extension thereof
I hereby authorize and requ	iest the Commissioner of Patents to issue any	and all of said Letters Potent to said Annian-
execute any and all Unite ecessary paths, supplement application for the reissue or a signee, its successors, legal	areby agree upon the request of said Assigner d States divisional, continuation and renewal ial oaths or declarations or supplemental de extension of any United States Letters Patent II I representatives or assigns may deem necess	e, its successors, legal representatives or assigns, I applications for said invention, and any and all eclarations or affidavits relating thereto, and any hat may be granted upon said application that said sary or expedient.
For the said consideration ssigns, in the event of said a in the reissue thereof, beco accessors, legal representation producing evidence in second to the accessory to obtain said to the accessory to accessory to the accessory to accessory	, I further agree upon the request of said A pplication or any division thereof, or Letters P ming involved in interference, to cooperate twee or assigns in the matters of preparing and upport thereof. I hereby agree to perform the performance of the performan	ssignee, its successors, legal representatives or latent issued thereon or any reissue or application to the best of my ability with said Assignee, its dexecuting the Preliminary Statement and giving upon such request, any and all affirmative acts conveyed in said Assignee, its successors, legal held and enjoyed if this assignment and sale had
order to carry into full force a	nd effect the sale, assignment and transfer he	and assign properly to execute without further papers and instruments which may be necessary reby made, or intended or agreed to be made.
And for said considerations this, title and interest in said is signee, its successors, legal secuted in connection with an execute any and all docum coessors, legal representatives.	I hereby assign to said Assignee, its success nvention or improvement for any and all foreign representatives or assigns to execute any y and all applications for foreign Letters Pater lents necessary to invest title in said foreign	sors, legal representatives and assigns, the entire gn countries and agree upon the request of said and all documents that shall be required to be at therefor, including the prosecution thereof, and applications and patents in said Assignee, its
GAL NAME OF INVENTOR		
rentor: JÖRG FRICKE	Date: <u>24</u> .	01. 20P
mature:	<u> </u>	
e: An application data sheet ( form. Use an additional PTO/	PTO/A(A/14 or equivalent), including naming the e SB/AIA01 form for each additional inventor.	entire inventive entity, must accompany

Norris McLaughlin & Marcus, P.A. Attorney Docket No.: 101215-541

COMBINATION DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT
Title of Invention LASER DIODE WITH DISTRIBUTED FEEDBACK AND METHOD FOR PRODUCING
As the below named inventor, I hereby declare that:
This declaration is directed to:
☑ United States application 15/736,631, filed on December 14, 2017 or
☐ PCT application number, filed on
The above-identified application was made or authorized to be made by me.
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.
I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above,
I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including further 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 application
For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto: FORSCHUNGSVERBUND BERLIN E.V., whose address is Rudower Chaussee 17, 12489, Berlin, Germany, a German corporation (hereinafter named "Assignee"), its successors, legal representatives and assigns, the entire right, title and interest in and to said invention for Letters Patent of the United States, filed as said application and to the entire right, title and interest in any and all inventions, whether joint or sole, disclosed in said application for Letters Patent, and in any and all divisional or continuation or renewal applications that may be filed for United States Letters Patent for any and all of said inventions, and in and to any and all patents that may be granted on the foregoing applications and any reissue or extension thereof.
I hereby authorize and request the Commissioner of Patents to issue any and all of said Letters Patent to said Assignee.
For said consideration, I hereby agree upon the request of said Assignee, its successors, legal representatives or assigns, to execute any and all United States divisional, continuation and renewal applications for said invention, and any and all necessary paths, supplemental paths or declarations or supplemental declarations or affidavits relating thereto, and any application for the reissue or extension of any United States Letters Patent that may be granted upon said application that said Assignee, its successors, legal representatives or assigns may deem necessary or expedient.
For the said consideration, I further agree upon the request of said Assignee, its successors, legal representatives or assigns, in the event of said application or any division thereof, or Letters Patent issued thereon or any reissue or application for the reissue thereof, becoming involved in interference, to cooperate to the best of my ability with said Assignee, its successors, legal representatives or assigns in the matters of preparing and executing the Preliminary Statement and giving and producing evidence in support thereof, I hereby agree to perform upon such request, any and all affirmative acts necessary to obtain said Letters Patent and vest all rights therein hereby conveyed in said Assignee, its successors, legal representatives or assigns as fully and entirely as the same would have been held and enjoyed if this assignment and sale had not been made.
I hereby bind myself, my heirs, legal representatives, administrators, and assign properly to execute without further consideration, any and all applications, petitions, oaths, assignments or other papers and instruments which may be necessary in order to carry into full force and effect the sale, assignment and transfer hereby made, or intended or agreed to be made.
And for said considerations, I hereby assign to said Assignee, its successors, legal representatives and assigns, the entire right, title and interest in said invention or improvement for any and all foreign countries and agree upon the request of said Assignee, its successors, legal representatives or assigns to execute any and all documents that shall be required to be executed in connection with any and all applications for foreign Letters Patent therefor, including the prosecution thereof, and to execute any and all documents necessary to invest title in said foreign applications and patents in said Assignee, its successors, legal representatives or assigns.
LEGAL NAME OF INVENTOR
Inventor: JONATHAN DECKER Date: 22.03.78
Signature:
Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/SB/AIA01 form for each additional inventor.

**RECORDED: 04/23/2018**