Commissioner for Patents	BOX ASSIGNMENT	S Alexandria, VA 22313-14	
Form PTO-1595 RECOR	DATION FORM COV		
(Rev. 03/01)	PATENTS OF	NLY U.S. PATENT AND TRADEMARK OFFICE	
To the honorable Commissioner of Patents ar	nd Trademarks: Please re	cord the attached original document or copy thereof:	
Name of Conveying Party(ies);	2, Name and Ad	dress of Receiving Party(ies):	
HESSE, Jan	Name:	Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e.V.	
KIRCHHOF, Christian	Street Address:	Hansastrasse 27c	
BECHTLOFF, Udo	Street Address:		
SCHMIEDER, Kai	City:	Muenchen	
•	State/Country:	Germany Postal Code: 80686	
Additional name(s) of conveying party(les) strached?		addresses attached? Yes Mo	
Additional name(s) of conveying party(les) attached?	Additional name(s) and s	iddressas attached? L_JYes uzzu No	
☐ Assignment	☐ Change of N		
L Security Agreement	Other;	Re-submission of Assignment Document (Document ID No.: 103630765)	
☐ Merger	Execution Date:	05202011; 05232011; 05232011 and 05232011	
4. Application Number(s) or Patent Number(s):	***		
Assignment is being filed together with new	application and the first	execution date of application is ;	
Application has been filed already and the a		05252011	
A. Patent Application Number(s):	B. Issued Patent N	umber(s):	
13067343			
	;		
Additiona	I numbers attached?	Yes Mo	
Name and address of party to whom correspondenceming this matter should be mailed;	Total number of applications and patents involved:		
CUSTOMER NUMBER 001	36 -or-	7. Total Fee (37 CFR 3.41): \$ 0	
JACOBSON HOLMAN P	LLC	Fee previously paid,	
400 Seventh Street, N.W.		Any deficiencies in enclosed fees are	
Washington, D.C. 20004-2218 Tel. 202-638-6666		authorized to be charged to Deposit Account No. 06-1358,	
Attorney Docket Number: P73973US0			
	DO NOT USE THIS SPA	ACE	
8. Statement and Signature:		11 11 11 11 11 11 11 11 11 11 11 11 11	
To the best of my knowledge and belief, the fo copy of the original document.	oregoing information is	true and correct and any attached copy is a true	
Jonathan L. Scherer 29,851	mulfian & 18	September 1, 2011	
Name of Person Signing, Reg. No.	Signature	Date	
T	otal number of pages inclu	ding cover sheet, attachmeRsAand-dabilments:	

(1-5) Insert Name(s) of Inventors

UNITED STATES OF AMERICA - ASSIGNMENT

(1) Jan HESSE

		(2)	Christian KIRCHHOF	
		(3)	Udo BECHTLOFF	
		(4)	Kal SCHMIEDER	and
		(5)	in consideration of the sum of one dollar (\$	1.00), and other good and valuable considerations sufficiency of which are hereby acknowledged, the sover to
(6)	Insert <u>Name</u> of Assignoo	(6)	Fraunhofer-Gesellschaft zur Foerderung de	r angewandten Forschung e.V.
(7)	Insert <u>Address</u> of Assignee	(7)	of Hansastrasse 27c 80686 Muenchen, G	ermany
(8)	Insert <u>Legal Entity</u> and <u>State or</u> <u>Country</u> (e.g., a corporation or citizen of Japan)		a Corporation (hereinafter designated as the Assignce) the er territories, dependencies and possessions, in	itire right, title and interest for the United States, its
(9)	Insert <u>Identification</u> of Invention, such as Tille, Case Number of Foreign Application Number		LIGHTING ELEMENT	an i i i i i i i i i i i i i i i i i i i
	The state of the s		for which the undersigned has (have) executed	I an application for patent in the United States of
(10)	Insert <u>Date</u> of signing or Application, or filing date and Serial No., if known		Said application having been filed on Serial No. 13/067, 343	ay 25, 2011 (and sangleed
or any co with suc provision	2) The undersigned egree(s) to onlinuing or divisional application h interference. 3) The undersigned egree(s) to sof the international Union for 4) The undersigned egree(s) to 5) The undersigned hereby aut	o execute ns thereo execute Protectio porform thorize(s)	f and to cooperate with the Assignee in every wa all papers and documents and perform any act want of industrial Property or similar agreements, all affirmative acts which may be necessary to all affirmative acts which may be necessary to and request(s) the Commissioner of Patents and	nay osem necessary or expecient. enforence which may be declared concerning this enforence which may be declared concerning this enforced and going forward which may be necessary in connection with claims blain a grant of a valid United States patent to the d Trademarks to issue any and all Letters Patents e said Assignee, as Assignee of the entire interest,
and here	eby covenents that he has (they execute any agreement in confik	have) ful ct herewli	Il right to convey the entire interest herein assign th.	ed, and that he has (they have) not executed, and ment of the patent rights assigned herein, including
right to	sue for, and collect damages for	r, any an	d all acts of past and future infringement.	
20004, t United S	 7) The undersigned hereby gra he power to insert on this assign states Patent and Trademark Of 	nment an	law firm of Jacobson Holman PLLC, 400 Seve y further identification which may be necessary o accordation of this document.	inth Street, N.W., Washington, D.C. or desirable in order to comply with the rules of the
			rsigned on the date(s) opposite the undersigned	name(s). /
Date _	Prop.		ventor Jan HESSE	(SEAL)
	72 6 2000		typed name	Skingture A A A
Date 💆	7. J. ////////////////// Na	ame of In	ventor Christian KIRCHHOF typed name	tagnature (SEAL)
Date	Nı	ama of In	vontor Udo BECHTLOFF	(SEAL)
	£35	anio or in	lyped name	signature
Date _	No.	ame of In	iventor Kal SCHMIEDER	(SEAL)
			lyped name	signature
Date _	No.	ame of In	typed name	signature (SEAL)
	This assignment should prefere	ably be sl	•••	road, or a Notary Public if domestically signed. If
not, the	the execution by the inventor(s	s) should	be witnessed by at least two witnesses who sign	here;
	ditional inventor's names and natures on a separate sheet,		W(Iness	J
219	inemine off a sabeluta stigat.		Witness	•
			LAW OFFICES OF	

JACOBSON HOLMAN

PROFESSIONAL LIMITED LIABILITY COMPANY
THE JENIFER BUILDING
400 SEVENTH STREET, N.W.
WASHINGTON, D.C. 20004

JH 5/01 (Copying without defetions permitted)

UNITED STATES OF AMERICA - ASSIGNMENT

(1-5) Insert Name(s) of Inventors (1)			Jon HESSE			
		(2)	Christian KIRCHHOF			
		(3)	Udo BECHTLOFF			
		(4)	A A A AND AND THE REPORT OF THE PARTY OF THE	and		
		(5)	THE THE PROPERTY OF THE PROPER			
			In consideration of the sum of one doller (\$1,	00), and other good and valuable considerations sufficiency of which are hereby acknowledged, the over to		
(6)	Insert <u>Neme</u> of Asalgnee	(6)	Fraunhofer-Gesellschaft zur Fonrderung der	angewandten Forschung e.V.		
(7)	Inseri <u>Address</u> of Assignee	(7)	of Hansastrasse 27c 80886 Muenchen, Germany			
(8)	Insert <u>Legal Entity</u> and <u>State of</u> <u>Country</u> (e.g., a comporation of cilizan of Japan)	<u>or</u> (8) or	a <u>Corporation</u> of <u>Germany</u> (hereinafter designated as the Assignee) the entire right, title and interest for the United States, its territories, dependencies and possessions, in the invention known as			
(9)	Insert <u>identification</u> of Invention	ta	LIGHTING ELEMENT	a manuoi vuomu sa		
1-7	such as Title, Case Number of Foreign Application Number	or (a)	TOTAL MAN ETEMETAL	288 A. I. B. I		
	v oragov repploation realisati	•	for which the undersigned has (have) executed an application for patent in the United Stat			
(10)	Insert <u>Date</u> of signing e Application, or filing date an Serial No., if known	of (10) id	Said application having been filed on May 25, 2011 (and assigned Serial No. 13/061, 343			
with suc provision United 5 and her will not right to 20004, United 5	ch interference. 3) The undersigned agree(s) to so of the international Union for 4). The undersigned agree(s) to 5). The undersigned hereby au States resulling from this applicate by covenants that he has (they execute any agreement in conflict Assignor hereby further assistate for, and collect damages for 7). The undersigned hereby grithe power to insert on this assignates Palent and Trademark O.	to execute r Protection to perform ultrarize(s) atton or any the performition or any the total to Assor, any and rank(s) the imment any office for re-	ell papers and documents and perform any act with of industrial Property or similar agreements, all affirmative acts which may be necessary to obtain draqueat(a) the Commissioner of Potents and continuing or divisional applications thereof to the right to convoy the entire interest herein assignent. Ignee all claims and causes of action for infringement, avitim of Jacobson Holman PLLC, 400 Seven further identification which may be necessary or contestion of this document.	d, and that he has (they have) not executed, and ent of the patent rights essigned herein, including th Street, N.W., Washington, D.C. desirable in order to comply with the rules of the		
			signed on the date(s) opposite the undersigned n			
Date .	N. C.	iame of inv	rentor Jan HESSE typed name	(SEAL)		
Date	N	lame of Inv	ventor Christian KIRCHHOF	(SEAL)		
Date	5/23/11 N	lame of Inv	typed name rentor <u>Udo BECHTLOFF</u>	signifura (SEAL)		
m .			typed name	signature		
Dato	N	lame of inv	rentor Kal SCHMIEDER typed name	signaturo (SEAL)		
Date	N	lame of inv	**	(SEAL)		
			typed name	signature		
gummag.	n the execution by the inventor(ebly be sig s) should b	ned before a United States Consul If signed abro e witnessed by at least two witnesses who sign h	ad, or a Notary Public if domestically signed. If nore:		
	ditional inventor's names and inventorial		Witness	****		
~19	for every many many and an another state of the law file for		Witnese			

LAW OFFICES OF

JACOBSON HOLMAN

PROFESSIONAL LIMITED LIABILITY COMPANY
THE JENIFER BUILDING
400 SEVENTH STREET, N.W.
WASHINGTON, D.C. 20004

JH 5/01 (Copying without detetions permitted)

UNITED STATES OF AMERICA - ASSIGNMENT

(1-5)	Insert Name(s) of Inventors	(1)	Jan HESSE		te Fabra sakaraka katara 1,5 jakalg seperikurun epergen 2 gest esakera astar astar astar astar astar astar ast	92406664442848428485672767 77		
		(2)	Christian KIRCHHOF					
		(3)	Udo BECHTLOFF					
		(4)	Kal SCHMIEDER and			and		
		(5)						
'			In consideration of the sum of one dollar (\$1.00), and other good and valuable consi paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowled undersigned hereby assigns, transfers and sets over to			nsiderations wiedged, the		
(6)	Insert <u>Neme</u> of Assignce	(6)	Fraunhofor-Gosoilschaft zur Foerdorung der angewandten Forschung c.V.					
(7)	Insert <u>Address</u> of Assignce	(7)	of Hansastrasse 27c 80686 Muerchon, Garmany					
(a) Corporation 0					of Germany			
	Country (e.g., a corporation of citizen of Japan)	or .	thereinstor /ieelangled at	sinafter designated as the Assignee) the entire right, title and interest for the United States, its lories, dependencies and possessions, in the invention known as				
<i>(</i> 9)	inseri <u>identification</u> of Inventior such an Title, Case Number of Foreign Application Number			······································				
		•	for which the undersigned her (have) executed an application for patent in the United States of					
(10)	insert <u>Date</u> of signing (Application, or filing date an	d (10)	Said application having been filled on May 35, 3011 (and assign Serial No. 13, 1067, 343) o all papers necessary in connection with this application and any continuing or divisional application.			and assigned		
	Serial No., if known							
or any owith sur provision United: and her will not right to 20004, United	to to execute separate assignment. 2) The undersigned agree(s) is continuing or divisional application interference. 3) The undersigned agree(s) is one of the international Union for the undersigned agree(s) is 5) The undersigned hereby at the secute any agreement in conflict and the secute any agreement in conflict demands for, and collect demands is the power to insert on this assignt the power to insert on the power that the power to insert on the power to ins	to execute or execute	all papers racessary in co r and to cooperate with the all papers and documents in of Industrial Property or a all affirmative acts which in and request(s) the Commi- rontinuing or divisional ap- inght to convey the antire in. I right to convey the antire in. Isignee all claims and cause diall acts of post and future law firm of Jacobson Hol- ly further Intentification which proposition of this document	mection with any interferent Assigned in every way possion of the control of the	ice which may be asciding con ible in obtaining evidence and a may be necessary in connection a grant of a valid United States ternaries to issue any and all Le Assignee, as Assignee of the o d that he has (litery have) not e with petent rights assigned her treat, N.W., Washington, D.C. rable in order to comply with the	n with cipims patent to the effers Patents affire interest, executed, and ein, including		
	in witness whereof, executed by			emen banglarahnu orit sitat	(s),	/A A. 1		
Date		tame of ir	ventor Jan MESSE	id name	signature	(SEAL)		
Date		Alama of Inventor	type ventor <u>Christian KIRGH</u>	,	218th Carlotte	(SEAL)		
Data		MALIFIC WITH		ed name	signature	•		
Date	<u> </u>	Name of Ir	iventor <u>Udo BECHTLOF</u>			(SEAL)		
	A 122 1200A			ed name	signature	- (SEAL)		
Date	05/23/2011	Name of Inventor		d name	signature	(acve)		
Date	•	dame of Ir				(SEAL)		
not, the	This assignment should prefer	rably be s (s) should	gned before a United State	ed name is Consul)f signed abroad, vo witnesses who sign here:	signature or a Notary Public if domestica :	fly signed. If		
	dilional inventor's names and		Witness					
8)	gnatures on a separato sheet.		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		•			
			Wilness	.,,				

LAW OFFICES OF

JACOBSON HOLMAN

PROFESSIONAL LIMITED LIABILITY COMPANY
THE JENIFER BUILDING
400 SEVENTH STREET, N.W.
WASHINGTON, D.C. 20004

JH 5/01 (Copying without detations permitted)

PATENT REEL: 026847 FRAME: 0322

RECORDED: 08/11/2011