### 504678944 12/08/2017

## **PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1 Stylesheet Version v1.2

nic Version v1.1 EPAS ID: PAT4725666

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
GAELLE BEALLE	10/13/2017
CHRISTOPH LEONHARD	10/23/2017
HSIN-RONG TSENG	10/16/2017
IRINA MARTYNOVA	09/26/2017
AURELIE LUDEMANN	09/15/2017

### **RECEIVING PARTY DATA**

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State/Country:	GERMANY
Postal Code:	64293

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

Property Type	Number
Application Number:	15735013

### **CORRESPONDENCE DATA**

**Fax Number:** (302)467-4201

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.

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Correspondent Name: DRINKER BIDDLE & REATH LLP (WM)
Address Line 1: 222 DELAWARE AVENUE, STE. 1410
Address Line 4: WILMINGTON, DELAWARE 19801-1621

ATTORNEY DOCKET NUMBER:	074025-0542-571784
NAME OF SUBMITTER:	ASHLEY I. PEZZNER
SIGNATURE:	/Ashley I. Pezzner/
DATE SIGNED:	12/08/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 5** 

PATENT REEL: 044341 FRAME: 0622

504678944



PATENT REEL: 044341 FRAME: 0623

Title of Invention	Esters containing non-aromatic cycles as solvents for OLED formulations			
As the below named inventor, I hereby declare that:				
This declaration		The attached application, or		
is directed to:		United States Application or PCT International Application number <a href="PCT/EP2016/000797">PCT/EP2016/000797</a> filed on <a href="May 13, 2016">May 13, 2016</a>		
The above-identif	ied applic	ation was made or authorized to be made by me.		
I believe that I an	the origin	nal inventor or an original joint inventor of a claimed invention in the application.		
all patent(s) listed	Ed to as the labove, in	Merck Patent GmbH Frankfurter Strasse 250 4293 Darmstadt / DE e ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and cluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, reals, reissues, reexaminations and extensions thereof.		
NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and patent(s), including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto concerning said invention, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, including the right to sue for damages occurring before the assignment, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.				
AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with securing Letters Patents thereon.				
AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.				
The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this assignment information which may be necessary or desirable in order for the United States Patent and Trademark Office to properly record this document.				
		IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR		
l hereb	y acknowl nent of not	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by timore than five (5) years, or both.		
LEGAL NAME				
Inventor:	Gaelle BÉ	ALLE Date:		
Signature:	activities.			

Millen, White, Zelano & Branigan, P.C.
Attorneys at Law
Arlington Courthouse Plaza
2200 Clarendon Boulevard | Suite 1400 | Arlington VA 22201
Telephone: 703.243.6333 | Fax: 703.243.6410
Email: mail@mwzb.com

Effective, September 16, 2012

Title of Invention	Esters containing non-aromatic cycles as solvents for OLED formulations		
As the below nam	led inventor, I hereby declare that:		
This declaration	☐ The attached application, or		
is directed to:	United States Application or PCT International Application number <u>PCT/EP2016/000797</u> filed on □ May 13, 2016		
The above-identif	ied 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.		
all patent(s) listed including any and NOW, ASSIGNOR here right, title and int and all Letters Pathereof, and in an to accrue with resinvention, SAID including any and which may be graright to sue for darsing from or a prenewals, reissues representatives, in	Merck Patent GmbH Frankfurter Strasse 250 64293 Darmstadt / DE ed to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and above, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, all renewals, reissues, reexaminations and extensions thereof.  WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, by assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive erest in and to said invention and patent(s), including any and all divisions and continuations thereof, and any tent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions d to any and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or spect to the filing or securing of patents in the United States and/or any countries foreign thereto concerning said ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, all earlier priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent and therefor, including any and all renewals, reissues, reexaminations and extensions thereof, including the popertaining thereto, for and during the term or terms of any and all such Letters Patent, including any and all as as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and, if the assignment had not been made.		
AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with securing Letters Patents thereon.			
AND A	ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on one and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.		
The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this assignment information which may be necessary or desirable in order for the United States Patent and Trademark Office to properly record this document.			
	IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR		
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.			
LEGAL NAME	OF INVENTOR Christoph LEONHARD & 8 Date:		
Signature:	<u> </u>		

Millen, White, Zelano & Branigan, P.C.
Attorneys at Law
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2200 Clarendon Boulevard | Suite 1400 | Arlington VA 22201
Telephone: 703.243.6333 | Fax: 703.243.6410
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is directed to:		United States Application or PCT International Application number <a href="PCT/EP2016/000797">PCT/EP2016/000797</a> filed on <a href="May 13, 2016">May 13, 2016</a>			
The above-identif	ied applic	ation was made or authorized to be made by me.			
I believe that I am	the origin	nal inventor or an original joint inventor of a claimed invention in the application.			
all patent(s) listed	ed to as the above, in	Merck Patent GmbH Frankfurter Strasse 250  4293 Darmstadt / DE  ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and cluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, als, reissues, reexaminations and extensions thereof.			
ASSIGNOR herel right, title and interact and all Letters Pat thereof, and in and to accrue with resinvention, SAID a including any and which may be graright to sue for da arising from or ap renewals, reissues representatives, in	by assigns erest in an tent which do any as pect to the ASSIGNE all earlies mages occupertaining, reexaminas ample	ETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive d to said invention and patent(s), including any and all divisions and continuations thereof, and any may be granted therefor, including any and all renewals, reissues, reexaminations and extensions and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or filing or securing of patents in the United States and/or any countries foreign thereto concerning said E, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent for, including any and all renewals, reissues, reexaminations and extensions thereof, including the curring before the assignment, with all the rights, powers, privileges and advantages in anywise thereto, for and during the term or terms of any and all such Letters Patent, including any and all nations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and ignment had not been made.			
and foreign count	ries for sa	R hereby agrees to execute all papers that may be necessary to file applications in the United States id invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to at may be needed in connection with securing Letters Patents thereon.			
AND A any and all division	SSIGNOI ons and co	R authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on intinuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.			
The uncassignment inform properly record the	nation wh	hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this ich may be necessary or desirable in order for the United States Patent and Trademark Office to ent.			
		IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR			
		edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by more than five (5) years, or both.			
LEGAL NAME C					
Inventor: I	Isin-Rong				
Signature:		orgh & 18 Mars V. Camp			

MILLEN, WHITE, ZELANO & BRANIGAN, P.C. ATTORNEYS AT LAW ARLINGTON COURTHOUSE PLAZA 2200 Clarendon Boulevard | Suite 1400 | Arlington VA 22201 TELEPHONE: 703.243.6333 | FAX: 703.243.6410

EMAIL: MAIL@MWZB.COM

Effective, September 16, 2012

Title of	Esters containing non-aromatic cycles as solvents for OLED formulations				
Invention					
As the below nam	ed invento	or, I hereby declare that:			
This declaration		The attached application,	or		Y
is directed to:	<b>5</b>	United States Application May 13, 2016	or PCT International	Application	number <u>PCT/EP2016/000797</u> filed on
The above-identif	ied applic	ation was made or authoriz	ed to be made by me.		
I believe that I am	the origin	nal inventor or an original j	oint inventor of a clai	med inventi	on in the application.
all natent(s) listed	F 6 2d to as the Labove, in	Merck Patent GmbH rankfurter Strasse 250 4293 Darmstadt / DE 2 ASSIGNEE, is desirous coluding any and all earlier als, reissues, reexamination	priority rights (U.S. a	nd foreign),	and interest in and to said invention and divisions and continuations thereof,
ASSIGNOR here right, title and int and all Letters Pattereof, and in an to accrue with res invention, SAID including any and which may be go right to sue for diarising from or agreewals, reissue representatives, in	by assigns erest in an act which do any a pect to the ASSIGNE I all earlier anted there operaintings, reexaming as ample is as ample	, sells, and transfers to AS d to said invention and pate may be granted therefor, and all U.S. (including prove filing or securing of pater E, its assigns and legal reperpriority rights (U.S. and I dior, including any and all curring before the assigning thereto, for and during the patience and extensions the	SIGNEE, its assigns a ent(s), including any a including any and all i isional) or foreign pri- its in the United State rescribitives to have, I foreign), divisions and renewals, reissues, rec- ent, with all the rights e term or terms of any reof, for the use and by all intents and purpo	nd legal rep und all divis- renewals, re- prity and/or s and/or any sold, exercis- continuation xaminations , powers, pr and all suc- enedit of AS	chereof is hereby acknowledged, presentatives, the entire and exclusive ions and continuations thereof, and any issues, reexaminations and extensions convention rights or benefits accruing or a countries foreign thereto concerning said as, and enjoy said invention and patent, as thereof, any and all Letters Patent is and extensions thereof, including the livileges and advantages in anywise h Letters Patent, including any and all issigns and legal assigns and legal assigns and legal assigns and legal and all issigns and legal and all issigns and legal and and and all including any and all issigns and legal and all including any any and all including any and all including any any and all including any
and ferrism cause	tries for so	R hereby agrees to execute iid invention and to assign at may be needed in conne	the same to said ASS	GNEE, its a	to file applications in the United States assigns and legal representatives and to as thereon.
AND A any and all divisi	ASSIGNO ons and co	R authorizes and requests to the street on the street on the street of t	he Commissioner of I SIGNEE, its assigns a	atents and and and and a	Trademarks to issue a Letters Patent on presentatives, in accordance herewith.
The un assignment infor properly record t	mation wh	ich may be necessary or de	m of Millen, White, Z estrable in order for th	elano & Bra e United Sta	anigan, P.C. the power to insert on this ates Patent and Trademark Office to
		IN TESTIMONY WHER	EOF this assignment	s executed t	by ASSIGNOR
I hereb fine or imprisons	ry acknow nent of no	ledge that any willful false t more than five (5) years,	statement made in thi or both.	s declaration	n is punishable under 18 U.S.C. 1001 by
LEGAL NAME					26.19.2017
		(TYNOVA)			
Signature:		Uapot - IDr	J. Harly	no va	

Millen, White, Zelano & Branigan, P.C.
Attorneys at Law
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all natentis) lister	Ed to as the	ferck Patent GmbH  rankfurter Strasse 250  4293 Darmstadt / DE  ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and cluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, als, reissues, reexaminations and extensions thereof.	
ASSIGNOR here right, title and int and all Letters Po thereof, and in at to accrue with re invention, SAID including any anywhich may be gright to sue for derising from or a renewals, reissue representatives, in enjoyed the same	eby assigns terest in an attent which and to any as specific to like ASSIGNE did affect anted there amages occupiertaining as ample e, if the assigns it in as ample e, if the assigns are assigns are assigns as ample e, if the assigns are assigns are as a manual assigns are assigns as a manual assigns are as a manual as a manu	ETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive d to said invention and patent(s), including any and all divisions and continuations thereof, and any may be granted therefor, including any and all renewals, reissues, reexaminations and extensions and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or filling or securing of patents in the United States and/or any countries foreign thereto concerning said E, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent for, including any and all renewals, reissues, reexaminations and extensions thereof, including the carring before the assignment, with all the rights, powers, privileges and advantages in anywise a thereto, for and during the term or terms of any and all such Letters Patent, including any and all nations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and ignment had not been made.	
and foreign cour execute any other	itries for sa or papers th	Representation of the Commercial Representation of the Applications in the United States and Invention and to assign the same to said ASSKINFE, its assigns and legal representatives and to at may be needed in connection with securing Letters Patents thereon.	
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I heret	by acknowl ment of no	ledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by timore than five (5) years, or both.	
LEGAL NAME	OF INVE	NTOR Date: K 8.5-14	
Inventor:	Aurélie U	JDEMANN Date: AS 65 14	
Signature:	Linean Linean	Nills Liggeran	

Millen, White, Zelano & Branigan, P.C.
Attorneys at Law
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PATENT REEL: 044341 FRAME: 0628

**RECORDED: 12/08/2017**