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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4840203

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                       |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                           |
| <b>CONVEYING PARTY DATA</b>   |                                      |
| <b>Name</b>   | <b>Execution Date</b>                |
| HARALD HIRSCHMANN   | 02/12/2018                           |
| MARTINA WINDHORST   | 02/12/2018                           |
| CHRISTIAN HOCK  | 02/12/2018                           |
| ANDREAS POHLE   | 02/12/2018                           |
| AXEL JANSEN   | 02/16/2018                           |
| <b>RECEIVING PARTY DATA</b>   |                                      |
| <b>Name:</b>  | MERCK PATENT GMBH                    |
| <b>Street Address:</b>  | FRANKFURTER STRASSE 250              |
| <b>City:</b>  | DARMSTADT                            |
| <b>State/Country:</b>   | GERMANY                              |
| <b>Postal Code:</b>   | 64293                                |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                      |
| <b>Property Type</b>  | <b>Number</b>                        |
| <b>Application Number:</b>  | 15755328                             |
| <b>CORRESPONDENCE DATA</b>  |                                      |
| <b>Fax Number:</b>  | (703)243-6410                        |
| <i>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.</i> |                                      |
| <b>Phone:</b>   | 703-243-6333                         |
| <b>Email:</b>   | mail@mwzb.com                        |
| <b>Correspondent Name:</b>  | MILLEN, WHITE, ZELANO & BRANIGAN-AEW |
| <b>Address Line 1:</b>  | 2200 CLARENDON BLVD.                 |
| <b>Address Line 2:</b>  | SUITE 1400                           |
| <b>Address Line 4:</b>  | ARLINGTON, VIRGINIA 22201            |
| <b>ATTORNEY DOCKET NUMBER:</b>  | MERCK-4690                           |
| <b>NAME OF SUBMITTER:</b>   | ASHLEY BROOKSHIRE                    |
| <b>SIGNATURE:</b>   | /Ashley Brookshire/                  |
| <b>DATE SIGNED:</b>   | 02/26/2018                           |
| This document serves as an Oath/Declaration (37 CFR 1.63).  |                                      |

**Total Attachments: 5**

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P157165

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

Title of Invention: **LIQUID CRYSTALLINE MEDIUM**

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 PCT/EP2016/001311 filed on July 28, 2016  
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.

AND WHEREAS  

MERCK PATENT GMBH  
 FRANKFURTER STRASSE 250  
 64293, DARMSTADT, GERMANY

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and all patent(s) listed above, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, including any and all renewals, 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

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  
Inventor: Martina WINDHORST Date: 12. Feb. 2018  
Signature: Martina Windhorst

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EMAIL: MAIL@MWZB.COM

Effective, September 16, 2012

P157165

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

Title of  
Invention

**LIQUID CRYSTALLINE MEDIUM**

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 PCT/EP2016/001311 filed on July 28, 2016

The above-identified application was made or authorized to be made by me.

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IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR


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LEGAL NAME OF INVENTOR

Inventor: Andreas POHLE

Date: 17. Feb. 2018

Signature:



MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
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is directed to:  United States Application or PCT International Application number PCT/EP2016/001311 filed on July 28, 2016

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.

AND WHEREAS  

MERCK PATENT GMBH  
FRANKFURTER STRASSE 250  
64293, DARMSTADT, GERMANY

  
hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and all patent(s) listed above, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, including any and all renewals, reissues, reexaminations and extensions thereof.

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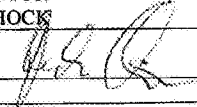
LEGAL NAME OF INVENTOR  
Inventor: Axel JANSEN Date: 16/02/2018  
Signature: *Axel Jansen*

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Effective, September 16, 2012

P151465

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

|  |   |
|--|---|
| <b>Title of Invention</b>  | <b>LIQUID CRYSTALLINE MEDIUM</b>  |
| As the below named inventor, I hereby declare that:  |   |
| <b>This declaration</b>  | <input type="checkbox"/> The attached application, or<br><input checked="" type="checkbox"/> United States Application or PCT International Application number <u>PCT/EP2016/001311</u> filed on <u>July 28, 2016</u> |
| 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.   |   |
| AND WHEREAS  |   |
| <div style="border: 1px solid black; padding: 5px;"> <p>MERCK PATENT GMBH<br/>FRANKFURTER STRASSE 250<br/>64293, DARMSTADT, GERMANY</p> </div>   |   |
| hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and all patent(s) listed above, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, including any and all renewals, reissues, reexaminations and extensions thereof.   |   |
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| <b>LEGAL NAME OF INVENTOR</b>  |   |
| Inventor: <u>Christian HOCK</u>  | Date: <u>12.02.18</u>   |
| Signature:    |   |

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Effective, September 16, 2012

P157/265

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LEGAL NAME OF INVENTOR  
Inventor: Harald HIRSCHMANN      Date: 12/02/2018  
Signature: Harald Hirschmann

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
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