

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Norihiko Tanaka</td> <td>05/28/2013</td> </tr> <tr> <td>Makoto Murakami</td> <td>05/30/2013</td> </tr> <tr> <td>Shinji Nakajima</td> <td>05/28/2013</td> </tr> </tbody> </table>		Name	Execution Date	Norihiko Tanaka	05/28/2013	Makoto Murakami	05/30/2013	Shinji Nakajima	05/28/2013		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Merck Patent GmbH</td> </tr> <tr> <td>Street Address:</td> <td>Frankfurter Strasse 250</td> </tr> <tr> <td>City:</td> <td>Darmstadt</td> </tr> <tr> <td>State/Country:</td> <td>GERMANY</td> </tr> <tr> <td>Postal Code:</td> <td>64293</td> </tr> </table>		Name:	Merck Patent GmbH	Street Address:	Frankfurter Strasse 250	City:	Darmstadt	State/Country:	GERMANY	Postal Code:	64293
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PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13874733</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13874733						
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CORRESPONDENCE DATA											
Fax Number: 7032436410 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 703-243-6333 Email: mail@mwzb.com Correspondent Name: Millen, White, Zelano & Branigan, P.C. Address Line 1: 2200 Clarendon Blvd., Suite 1400 Address Line 4: Arlington, VIRGINIA 22201											
ATTORNEY DOCKET NUMBER:	MERCK-3654-D03										
NAME OF SUBMITTER:	Csaba Henter										
Signature:	/Csaba Henter/										
Date:	06/11/2013										

OP \$40.00 13874733

This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 3**

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**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>	LIQUID CRYSTALLINE MEDIUM						
<p>As the below named inventor, I hereby declare that:</p> <p><b>This declaration</b> <input type="checkbox"/> The attached application, or</p> <p><b>is directed to:</b> <input checked="" type="checkbox"/> United States Application or PCT International Application number <u>13/874,733</u> filed on <u>5-1-2013</u>.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p><b>AND WHEREAS</b></p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;">             Merck Patent GmbH              Frankfurter Strasse 250              Darmstadt, Germany 64293           </div> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The undersigned hereby grant(s) the law firm of Millen, White, Zelano &amp; 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.</p> <p style="text-align: center;">IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR</p> <p>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.</p>							
<table style="width: 100%; border: none;"> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">LEGAL NAME OF INVENTOR</td> <td style="border: none;"></td> </tr> <tr> <td style="border: none;">Inventor: <u>Makoto Murakami</u></td> <td style="border: none;">Date: <u>30th May 2013</u></td> </tr> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">Signature: <u>Makoto Murakami</u></td> <td style="border: none;"></td> </tr> </table>		LEGAL NAME OF INVENTOR		Inventor: <u>Makoto Murakami</u>	Date: <u>30th May 2013</u>	Signature: <u>Makoto Murakami</u>	
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MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
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Effective, September 16, 2012

**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>	LIQUID CRYSTALLINE MEDIUM
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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 13/874,733 filed on 5-1-2013.

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  
 Darmstadt, Germany 64293

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

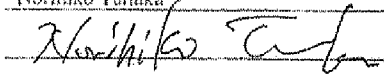
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

<b>LEGAL NAME OF INVENTOR</b>	
Inventor: <u>Shinji Nakajima</u>	Date: <u>May 28, 2013</u>
Signature: <u>Shinji Nakajima</u>	

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<b>LEGAL NAME OF INVENTOR</b>			
Inventor:	Norihiko Tanaka		Date: <u>28 May 2013</u>
Signature:			

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