

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT								
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT								
<b>CONVEYING PARTY DATA</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Susumu NODA</td> <td>03/14/2008</td> </tr> <tr> <td>Takashi ASANO</td> <td>03/14/2008</td> </tr> <tr> <td>Hitomichi TAKANO</td> <td>03/06/2008</td> </tr> </tbody> </table>		Name	Execution Date	Susumu NODA	03/14/2008	Takashi ASANO	03/14/2008	Hitomichi TAKANO	03/06/2008
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Susumu NODA	03/14/2008								
Takashi ASANO	03/14/2008								
Hitomichi TAKANO	03/06/2008								
<b>RECEIVING PARTY DATA</b>									
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<b>City:</b>	Kyoto-shi, Kyoto								
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<b>City:</b>	Kadoma-shi, Osaka								
<b>State/Country:</b>	JAPAN								
<b>Postal Code:</b>	571-8686								
<b>PROPERTY NUMBERS Total: 1</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>10593646</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	10593646				
Property Type	Number								
Application Number:	10593646								
<b>CORRESPONDENCE DATA</b>									
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CH \$40.00 10593646

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80092(302721)

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James E. Armstrong IV

Total Attachments: 3

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## ASSIGNMENT BY INVENTORS

**THIS ASSIGNMENT**, made by Susumu Noda; Takashi Asano; and Hitomichi Takano (hereinafter referred to as Assignors), residing at c/o Graduate School of Engineering, Kyoto University, Kyoto-Daigaku Katsura, Nishikyo-ku, Kyoto-shi, Kyoto 615-8510, JAPAN; c/o Graduate School of Engineering, Kyoto University, Kyoto-Daigaku Katsura, Nishikyo-ku, Kyoto-shi, Kyoto 615-8510, JAPAN; and c/o Matsushita Electric Works, Ltd., 1048, Oaza-Kadoma, Kadoma-shi, Osaka 571-8686, JAPAN, respectively;

**WHEREAS**, Assignors have invented certain new and useful improvements in TARGET SUBSTANCE SENSOR AND METHOD THEREOF USING A PHOTONIC CRYSTAL, set forth in a Patent application for Letters Patent of the United States, already filed on September 21, 2006 as U.S. Application No. 10/593,646; and

**WHEREAS**, Kyoto University and Matsushita Electric Works, Ltd., an University and a Corporation, respectively organized under and pursuant to the laws of Japan, respectively having their principal places of business at 36-1, Yoshidahonmachi, Sakyo-ku, Kyoto-shi, Kyoto, 606-8501, JAPAN; and 1048, Oaza-Kadoma, Kadoma-shi, Osaka 571-8686, JAPAN, respectively (hereinafter referred to as Assignees), are desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignees, their successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters

Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignees, for their own use and benefit and the use and benefit of their successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignees, their successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignees under law or that have already been transferred to Assignees, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignees, their successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignees, their successors, legal representatives and assigns, whenever counsel of Assignees, or counsel of their successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

**AND** Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignees, as


Assignees of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignees, their successors, legal representatives and assigns.

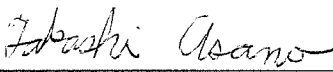
**AND** Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

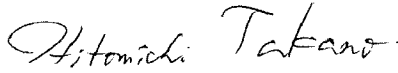
EDWARDS ANGELL PALMER & DODGE LLP

All practitioners at Customer Number 21874

AND Assignors acknowledge an obligation of assignment of this invention to Assignees at the time the invention was made.

Date: 03/14/2008 Signature:   
Susumu Noda

Date: 03/14/2008 Signature:   
Takashi Asano

Date: 03/06/2008 Signature:   
Hitomichi Takano