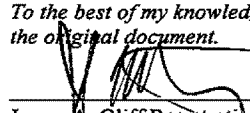
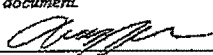


<b>Mail Stop:</b> <b>Assignment Recordation Services</b> <b>Director of the U.S. Patent</b> <b>and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>RECORDATION FORM COVER SHEET</b> <b>PATENTS ONLY</b>	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>Patent and Trademark Office</b>
		<b>Attorney Docket No. <u>151107</u></b>
Please record the attached original document or copy thereof. Total number of pages including cover sheet, attachments, and document: <u>6</u>		
1. A. Name of conveying parties: [1] Norio TANAKA [2] Shigeru TAKARADA [3] Hirofumi WATANABE [4] Shiro FUTAKI [5] Ichiro UENO [6] Takashi HIRAGA [7] Noritaka YAMAMOTO  B. Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. A. Name and address of receiving parties: [1] DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD. 7-6, NIHONBASHI-BAKUROCHO 1- CHOME CHUO-KU, TOKYO 103-8383, JAPAN  [2] INTER ENERGY CO., LTD. 3-20-12, SHINYOKOHAMA KOHOKU-KU YOKOHAMA-SHI, KANAGAWA 222-0033, JAPAN  [3] NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY 3-1, KASUMIGASEKI 1-CHOME CHIYODA-KU, TOKYO 100-8921 JAPAN  B. Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3. A. Nature of conveyance:  <input type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input checked="" type="checkbox"/> Other <u>Response to Notice of Non-Recordation of</u> <u>Document (Doc ID No. 700475515)</u>  B. Execution Date: <u>[1 &amp; 2] October 17, 2011; [2 &amp;</u> <u>3] November 10, 2011; [4-7] October 31, 2011</u>		
4. A. Patent Application No. <u>13/264,654</u> B. Patent No.(s)  Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  C. Title of Application: <u>OPTICAL PATH SWITCHING SIGNAL TRANSMISSION/RECEPTION</u> <u>APPARATUS AND CORRESPONDING METHOD</u>		
5. Name and address of party to whom correspondence concerning document should be mailed:  Name: <u>James A. Oliff</u>  Address: <u>OLIFF &amp; BERRIDGE, PLC</u> <u>P.O. Box 320850</u> <u>Alexandria, VA 22320-4850</u> <u>Phone Number: 703-836-6400</u> <u>Fax Number: 703-836-2787</u>	6. Total number of applications and patents involved: <u>1</u>  7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00.  8. Credit any overpayment or charge any underpayment to deposit account number 15-0461.	
9. <b>Statement and signature.</b> <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 60%;">             James A. Oliff Registration No. 27,075            Joel S. Armstrong Registration No. 36,430         </div> <div style="width: 35%; text-align: right;">           Date: <u>December 5, 2011</u> </div> </div>		

O: JAMES A. OLIFF COMPANY: OLIFF &amp; BERRIDGE, . PLC

11/21/2011 14:55 FAX 7038362787

0001/0003

Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450		11/21/2011 7038362787 RECORDED FORM COVER SHEET PATENTS ONLY		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
				Attorney Docket No. <u>151107</u>	
Please record the attached document. Total number of pages including cover sheet, attachments, and document: <u>3</u>					
1. A. Name of conveying parties: [1] Norio TANAKA [2] Shigeru TAKARADA [3] Hirofumi WATANABE [4] Shiro FUTAKI [5] Ichiro UENO [6] Takashi HIRAGA [7] Noritaka YAMAMOTO B. Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2. A. Name and address of receiving parties: [1] DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD. 7-6, NIHONBASHI-BAKUROCHO 1- CHOME CHUO-KU, TOKYO 103-8383, JAPAN [2] INTER ENERGY CO., LTD. 3-20-12, SHINYOKOHAMA KOHOKU-KU YOKOHAMA-SHI, KANAGAWA 222-0033, JAPAN [3] NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY 3-1, KASUMIGASEKI 1-CHOME CHIYODA-KU, TOKYO 100-8921 JAPAN B. Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. A. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ B. Execution Date: <u>[1 &amp; 2] October 17, 2011; [2 &amp; 3]</u> <u>November 10, 2011; [4-6] October 31, 2011</u>					
4. A. Patent Application No. <u>13/264,654</u> Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No C. Title of Application: <u>OPTICAL PATH SWITCHING SIGNAL TRANSMISSION/RECEPTION</u> <u>APPARATUS AND CORRESPONDING METHOD</u>			B. Patent No.(s)		
5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>James A. Oliff</u> Address: <u>OLIFF &amp; BERRIDGE, PLC</u> <u>P.O. Box 320850</u> <u>Alexandria, VA 22320-4850</u> <u>Phone Number: 703-836-6400</u> <u>Fax Number: 703-836-2787</u>			6. Total number of applications and patents involved: <u>1</u> 7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of <u>\$40.00</u> . 8. Credit any overpayment or charge any underpayment to deposit account number <u>15-0461</u> .		
9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.  James A. Oliff Registration No. 27,975 Aya Suzuki Registration No. 64,621 Date: <u>November 21, 2011</u>					

CH \$40.00 150461 13264654

O: JAMES A. OLIFF COMPANY: OLIFF & BERRIDGE, . PLC

11/21/2011 14:55 FAX 7038362787

0002/0003

PCT/JP2010/056961

For Non-U.S. Clients

### Assignment

Whereas, I/We, Norio TANAKA, Shigeru TAKARADA, Hirofumi WATANABE, Shiro FUTAKI, Ichiro UENO, Takashi HIRAGA, and Noritaka YAMAMOTO

hereinafter called assignor(s), have invented certain improvements in

OPTICAL PATH SWITCHING SIGNAL TRANSMISSION/RECEPTION APPARATUS  
AND CORRESPONDING METHOD

and executed an application for Letters Patent of the United States of America therefor on  
October 17, 2011, October 31, 2011, November 10, 2011; and

- Whereas,
- 1) DAINICHISEIKA COLOR & CHEMICALS MFG. CO., LTD. of  
7-6, Nihonbashi-Bakurocho 1-chome, Chuo-ku, Tokyo 103-8383, Japan,
  - 2) Inter Energy Co., Ltd. of  
3-20-12, Shinyokohama, Kohoku-ku, Yokohama-shi, Kanagawa 222-0033, Japan,
  - 3) NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND  
TECHNOLOGY of  
3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100-8921 Japan,

(assignee(s)), desires to acquire the entire right, title, and interest in the application and invention,  
and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named  
assignee(s), its successors and assigns, the entire right, title and interest in the application and the  
invention disclosed therein for the United States of America, and all divisions, and continuations thereof,  
and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including  
the right to claim priority under 35 U.S.C. §119, and I/we request the Commissioner of Patents to issue  
any Letters Patent granted upon the invention set forth in the application to the assignee(s), its successors  
and assigns; and I/we will execute without further consideration all papers deemed necessary by the  
assignee(s) in connection with the United States application when called upon to do so by the assignee(s).

I/We hereby authorize and request our attorneys OLIFF & BERRIDGE, PLC of 277 South  
Washington Street, Suite 500, Alexandria, Virginia 22314 to insert here in parentheses (Application  
number \_\_\_\_\_, filed \_\_\_\_\_) the filing date and application number of said application  
when known.

Date: October 17, 2011 Norio Tanaka  
s/ Norio TANAKA

Date: October 17, 2011 Shigeru Takarada  
s/ Shigeru TAKARADA

PATENT

REEL: 027339 FRAME: 0725

O: JAMES A. OLIFF COMPANY: OLIFF &amp; BERRIDGE, . PLC

11/21/2011 14:56 FAX 7038362787

0003/0003

Date: November 10, 2011 H. Watanabe  
s/ Hirofumi WATANABE

Date: November 10, 2011 Shiro Futaki  
s/ Shiro FUTAKI

Date: October 31, 2011 Ichiro Ueno  
s/ Ichiro UENO

Date: October 31, 2011 Takashi Hiraga  
s/ Takashi HIRAGA

Date: October 31, 2011 Noritaka Yamamoto  
s/ Noritaka YAMAMOTO

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261) 8/92