orm PFO-1595 (Rev. 07/05) MB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCI United States Patent and Trademark Offic		
RECORDATION FOR			
PATENT	S ONLY		
To the Director of the U.S. Patent and Trademark Office: Please	record the attached documents or the new address(cs) below.		
Name of conveying party(ies):	2. Name and address of receiving party(les)		
Toshio Tahira (05/19/2005), Yasuo Nishi	Name: Sharp Kabushiki Kaisha		
(05/17/2005), Kazuhiro Murata (05/20/2005), and Hiroshi Yokoyama (05/26/2005)			
Additional name(s) of conveying party(ies) attached? Yes X No	Internal Address:		
3, Nature of conveyance/Execution Date(s):			
•	22-22 Nagaike-cho Abeno-ku, Osaka-shi		
Execution Date(s): in parentheses after inventor name			
X Assignment Merger Change of Name			
Security Agreement Joint Research Agreement	City: Osaka		
Government Interest Assignment	State:		
Executive Order 9424, Confirmatory License	Country: JAPAN Zip: 545-8522		
Other	Additional name(s) & address(es) x Yes No		
Leaves .	attached:		
4. Application or patent number(s):  A. Patent Application No.(s)  10/529,076	This document is being filed together with a new application.  B. Palent No.(s)		
Additional numbers attached			
i. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:		
Name: EDWARDS & ANGELL, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00		
Internal Address: Atty. Dkt.: 63,128 (70904)	Authorized to be charged by credit card		
Street Address: P.O. Box 55874	X Authorized to be charged to deposit account		
	Enclosed		
	None required (government interest not affecting title		
City: Boston	8. Payment Information		
State: MA Zip: 02205	a. Credit Card Last 4 Numbers		
Phone Number: (617) 439-4444	Expiration Date		
Fax Number: (617) 439-4170	b. Deposit Account Number 04-1105		
Email Address: ghartnell@edwardsangell.com	Authorized User Name George W. Harfnell, III		
Signaldie	October 24, 2005		
Conatur	Date		
George W. Hartnell, III - 42,639  Name of Person Signing	Total number of pages including cover 8 sheet, attachments, and documents:		
	77		
I hereby certify that this correspondence is being facsimile transport \$995, on the date shown below.	ed to the Patent and Trademark Office, facsimile no. (703) 306-		
Debut Detaker 24, 2005 Signature:	Carl Ulakeisha Bryani)		

513603

**PATENT REEL: 016931 FRAME: 0800** 

700219833

Form PTO-1595 RECORDATION FORM COVER SHEET  (continued)				
Additional Conveying Party(ies)/Execution Date(s) (1. Continued):				
Additional A	ssignees (2. Continued):			
Additional A:	ssignees (2. Continued).			
Assignee Name: Internal Address:	Konica Minolta Holdings, Inc.			<del></del>
Street Address:	6-1, Marunouchi 1-chome Chiyoda-ku			
City:T	okyo State:	Country:	Japan	Zip: <u>100-0005</u>
Assignee Name: National Institute of Advanced Industrial Science and Technology				
Street Address:	1-3-1 Kasumigaseki Chiyoda-ku			
1	okyo State:			· ·
Assignee Name:				
Internal Address: Street Address:				
City:	State:	Country:	A 17 - F Value - Ar MANAGER IN SAFE MERCAGE.	Zip;
Additional Applications and/or Patents (4. Continued):				
Additional Patent A 4A. Continued:	application Numbers	Additional Patent I 4B. Continued:	Numbers	
Additional numbers attached? Yes x No				

2

Docket No.: 63,128 (70904)

Docket No. 63,128 (70904)

## ASSIGNMENT

I, Toshio TAHIRA(inventor), for good and valuable consideration from (I)SHARP KABUSHIKI KAISHA, ②KONICA MINOLTA HOLDINGS, INC. and ③NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (assignee), having its principal place of business at (1)22-22, Nagaike-cho Abeno-ku Osaka-shi Osaka 545-8522 Japan, 26-1, Marunouchi 1-chome Chiyoda-ku, Tokyo 100-0005 Japan and 31-3-1, Kasumigaseki Chiyoda-ku. Tokyo 100-8921 Japan (address) hereinafter called the Assignee, receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto the Assignce, its successors and assigns, the entire right, title and interest in, to and under an application for Letters Patent of the United States Serial No. 10/529.076 filed on March 24, 2005 for improvements in the ACTIVE MATRIX ORGANIC ELECTROLUMINESCENT DISPLAY ELEMENT, AND APPARATUS AND METHOD FOR MANUFACTURING ACTIVE MATRIX ORGANIC ELECTROLUMINESCENT DISPLAY ELEMENT, LIQUID CRYSTAL ARRAY AND APPARATUS AND METHOD FOR MANUFACTURING LIQUID CRYSTAL ARRAY, AND COLOR FILTER SUBSTRATE AND APPARATUS AND METHOD FOR MANUFACTURING COLOR FILTER SUBSTRATE(title) priority rights ensuing therefrom, and the inventions and any of them therein set forth and described, in any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor, together with the right to apply for such Letters Patent.

And for the above consideration I agree promptly upon request of the Assignee, its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, divisional, continuation or reissue, or other papers which may be necessary or desirable fully to secure to the Assignee, its successors and assigns, the inventions and any of them described in said application and all patent rights therein, in the United States and in any country foreign thereto.

The undersigned agree(s) to furnish all pertinent facts and documents relating to said application, said invention and said patent(s) as may be known and accessible to the undersigned, and will testify as to the same in any interference or litigation related thereto, and will promptly execute and deliver to Assignee any and all papers, instruments or affidavits necessary or desirable to apply for, obtain, maintain or enforce said application or said patent(s) in connection with any interference which may be declared, and any litigation concerning this application or any continuation, division or reissue thereof or Patent(s) or reissue patent(s) issued thereon, and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner for Patents to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he or she has the full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants Edwards & Angell, LLP of P.O. Box 55874, Boston, MA 02205, U.S.A. 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 U.S. Patent and Trademark, Office for recordation of this document.

I, Toshio TAHIRA, hereunto set my hand and scal this  $\frac{19}{4}$  day of  $\frac{hay}{}$ , 2005.

Toshio Tahira

Docket No. 63,128 (70904)

## ASSIGNMENT

I, Yasuo NISHI(inventor), for good and valuable consideration from ①SHARP KABUSHIKI KAISHA, @KONICA MINOLTA HOLDINGS, INC. and @NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (assignee), having its principal place of business at <u>(1)22-22</u>, Nagaike-cho Abeno-ku Osaka-shi Osaka 545-8522 Japan, ②6-1, Marunouchi 1-chome Chivoda-ku, Tokyo 100-0005 Japan and ③1-3-1, Kasumigaseki Chiyoda-ku, Tokyo 100-8921 Japan (address) hereinafter called the Assignce, receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in, to and under an application for Letters Patent of the United States Serial No. 10/529.076 filed on March 24, 2005 for improvements in the ACTIVE MATRIX ORGANIC ELECTROLUMINESCENT DISPLAY ELEMENT, AND APPARATUS AND METHOD FOR MANUFACTURING ACTIVE MATRIX ORGANIC ELECTROLUMINESCENT DISPLAY ELEMENT, LIQUID CRYSTAL ARRAY AND APPARATUS AND METHOD FOR MANUFACTURING LIQUID CRYSTAL ARRAY, AND COLOR FILTER SUBSTRATE AND APPARATUS AND METHOD FOR MANUFACTURING COLOR FILTER SUBSTRATE(title) priority rights ensuing therefrom, and the inventions and any of them therein set forth and described, in any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor, together with the right to apply for such Letters Patent.

And for the above consideration I agree promptly upon request of the Assignec, its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, divisional, continuation or reissue, or other papers which may be necessary or desirable fully to secure to the Assignec, its successors and assigns, the inventions and any of them described in said application and all patent rights therein, in the United States and in any country foreign thereto.

The undersigned agree(s) to furnish all pertinent facts and documents relating to said application, said invention and said patent(s) as may be known and accessible to the undersigned, and will testify as to the same in any interference or litigation related thereto, and will promptly execute and deliver to Assignee any and all papers, instruments or affidavits necessary or desirable to apply for, obtain, maintain or enforce said application or said patent(s) in connection with any interference which may be declared, and any litigation concerning this application or any continuation, division or reissue thereof or Patent(s) or reissue patent(s) issued thereon, and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignce and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner for Patents to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he or she has the full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants Edwards & Angell, LLP of P.O. Box 55874, Boston, MA 02205, U.S.A. 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 U.S. Patent and Trademark, Office for recordation of this document.

PATENT

REEL: 016931 FRAME: 0805

Docket No. 63,128 (70904)

## ASSIGNMENT

I, Kazuhiro MURATA and Hiroshi YOKOYAMA (inventor), for good and valuable consideration from ①SHARP KABUSHIKI KAISHA. ②KONICA MINOLTA HOLDINGS. INC. and @NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (assignee), having its principal place of business at (1)22-22, Nagaike-cho Abeno-ku Osaka-shi Osaka 545-8522 Japan, 26-1, Marunouchi 1-chome Chiyoda-ku, Tokyo 100-0005 Japan and 31-3-1, Kasumigaseki Chiyoda-ku, Tokyo 100-8921 Japan (address) hereinafter called the Assignce, receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in, to and under an application for Letters Patent of the United States Serial No. 10/529,076 filed on March 24, 2005 for improvements in the ACTIVE MATRIX ORGANIC ELECTROLUMINESCENT DISPLAY ELEMENT, AND APPARATUS AND METHOD FOR MANUFACTURING ACTIVE MATRIX ORGANIC ELECTROLUMINESCENT DISPLAY ELEMENT, LIQUID CRYSTAL ARRAY AND APPARATUS AND METHOD FOR MANUFACTURING LIQUID CRYSTAL ARRAY, AND COLOR FILTER SUBSTRATE AND APPARATUS AND METHOD FOR MANUFACTURING COLOR FILTER SUBSTRATE(title) priority rights ensuing therefrom, and the inventions and any of them therein set forth and described, in any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor, together with the right to apply for such Letters Patent.

And for the above consideration I agree promptly upon request of the Assignee, its successors or assigns, to execute and deliver without further compensation any power of attorney, assignment, application, whether original, divisional, continuation or reissue, or other papers which may be necessary or desirable fully to secure to the Assignee, its successors and assigns, the inventions and any of them described in said application and all patent rights therein, in the United States and in any country foreign thereto.

The undersigned agree(s) to furnish all pertinent facts and documents relating to said application, said invention and said patent(s) as may be known and accessible to the undersigned, and will testify as to the same in any interference or litigation related thereto, and will promptly execute and deliver to Assignee any and all papers, instruments or affidavits necessary or desirable to apply for, obtain, maintain or enforce said application or said patent(s) in connection with any interference which may be declared, and any litigation concerning this application or any continuation, division or reissue thereof or Patent(s) or reissue patent(s) issued thereon, and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

RECORDED: 10/24/2005

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignce and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner for Patents to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he or she has the full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants Edwards & Angell, LLP of P.O. Box 55874, Boston, MA 02205, U.S.A. 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 U.S. Patent and Trademark, Office for recordation of this document.

I, Kazuhiro MURATA, hereunto set my hand and seal this 204 day of May, 2005.

Kuzuhira Muruta

I, Hiroshi YOKOYAMA, hereunto set my hand and seal this 26th day of May, 2005.

Herosto Mahojama

PATENT

REEL: 016931 FRAME: 0807