

## PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT										
NATURE OF CONVEYANCE:	Corrective Assignment to correct the Notice of Recordation, the invention's title is misspelled, please see the Specification, Page 1, of April 5, 2012, previously recorded on Reel 027993 Frame 0045. Assignor(s) hereby confirms the Assignment.										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Masakazu SAGAWA</td> <td>03/22/2012</td> </tr> <tr> <td>Shin IMAMURA</td> <td>03/29/2012</td> </tr> <tr> <td>Toshiaki KUSUNOKI</td> <td>03/29/2012</td> </tr> </tbody> </table>		Name	Execution Date	Masakazu SAGAWA	03/22/2012	Shin IMAMURA	03/29/2012	Toshiaki KUSUNOKI	03/29/2012		
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<table border="1"> <tr> <td>Name:</td> <td>HITACHI, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>6-6, Marunouchi 1-chome</td> </tr> <tr> <td>Internal Address:</td> <td>Chiyoda-ku</td> </tr> <tr> <td>City:</td> <td>Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> </table>		Name:	HITACHI, LTD.	Street Address:	6-6, Marunouchi 1-chome	Internal Address:	Chiyoda-ku	City:	Tokyo	State/Country:	JAPAN
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PROPERTY NUMBERS Total: 1											
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Application Number:	13500312										
CORRESPONDENCE DATA											
Fax Number:	(703)312-6666										
Phone:	7033126600										
Email:	rperez@antonelli.com										
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>											
Correspondent Name:	Antonelli, Terry, Stout & Kraus, LLP										
Address Line 1:	1300 N. 17th Street										
Address Line 2:	Suite 1800										
Address Line 4:	Arlington, VIRGINIA 22209										
ATTORNEY DOCKET NUMBER:	843.52363X00										

NAME OF SUBMITTER:

Melvin Kraus

Total Attachments: 8

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
**Masakazu SAGAWA**  
**Shin IMAMURA, Toshiaki KUSUNOKI**

Additional name(s) of conveying party(ies) attached?  Yes  No

2. Name and address of receiving party(ies)  
 Name: **HITACHI, LTD.**

Street Address: **6-6, Marunouchi 1-chome**  
**Chiyoda-ku, Tokyo, Japan**

Additional name(s) & address(es) attached?  Yes  No

3. Nature of conveyance/ Execution Date: March 22, 2012;  
 March 29, 2012; March 29, 2012.

Assignment  Merger  
 Security Agreement  Change of Name  
 Joint Research Agreement  
 Government Interest Assignment  
 Executive Order 9424, Confirmatory License  
 **Other. Corrected Assignment.** In the Notice of Recordation, the invention's title is misspelled. Please see the Specification, Page 1, filed on April 5, 2012, copy attached. Reel 027993 Frame 0045.

4. Application number(s) or patent number(s):

A. Patent Application No.(s)  
**13/500,312**

This document is being filed together with a new application.

B. Patent Registration No.(s)

Additional number(s) attached  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: **ANTONELLI, TERRY, STOUT & KRAUS, LLP**

Internal Address:

**1300 NORTH 17<sup>TH</sup> STREET - SUITE 1800**

City: **ARLINGTON** State: **VA** Zip **22209**

Phone Number: **(703) 312-6600**  
 Facsimile Number: **(703) 312-6666**  
 Email Address: **email@antonelli.com**

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41)..... \$40.00

Authorized to be charged by credit card  
 Authorized to be charged to deposit account  
 Enclosed  
 None required (government interest not affecting title)

8. Payment Information:

a. Credit Card Last 4 numbers:  
 Expiration date:

b. Deposit account number: 01-2135

Authorized User Name:

**DO NOT USE THIS SPACE**

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.*

**Melvin Kraus, Reg#22,466**                      */Melvin Kraus/ MK*                      **04/18/2012**

\_\_\_\_\_  
 Name of Person Signing                      Signature                      Date

Total number of pages including cover sheet, attachments, and document: 8

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
 Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

ASSIGNMENT  
(讓渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by HITACHI, LTD., a corporation organized under the laws of Japan, located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

FLUORESCENT LAMP AND IMAGE DISPLAY APPARATUS

invented by me (if only one is named below ) or us (if plural inventors are named below ) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said HITACHI, LTD.,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI, LTD.

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)  
(発明者フルネームサイン)

Date Signed  
(署名日)

1) Masakazu Sagawa (Masakazu SAGAWA)

3/22/2012

2) Shin Imamura (Shin IMAMURA)

3/29/2012

3) Toshiaki Kusunoki (Toshiaki KUSUNOKI)

3/29/2012

4) \_\_\_\_\_

\_\_\_\_\_

5) \_\_\_\_\_

\_\_\_\_\_

6) \_\_\_\_\_

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501878549 04/05/2012

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OP \$40.00 13500312

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Signature:	/Melvin Kraus/
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<b>RECEIPT INFORMATION</b>	
EPAS ID:	PAT1913078
Receipt Date:	04/05/2012
Fee Amount:	\$40

SPECIFICATION

TITLE OF THE INVENTION

FLUORESCENT LAMP AND IMAGE DISPLAY APPARATUS

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TECHNICAL FIELD

The present application describes an invention relating to a fluorescent lamp and a display apparatus using fluorescence.

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BACKGROUND ART

Straight-tube fluorescent lamps have been widely available as general illumination, and their luminous efficiency is as extremely high as 100 lm/W to 120 lm/W. In recent years, however, under the environmental regulations in Europe and others, for example, the RoHS regulations, there have been active movements for demanding new illumination lamps using no Hg. Typical candidates thereof include LED and OLED illuminations, but fluorescent lamps such as Xe lamps using no mercury have also been reviewed.

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**PRIOR ART DOCUMENTS**

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**PATENT DOCUMENTS**

Patent Document 1: Japanese Unexamined Patent Application Publication No. 2005-353419

Patent Document 2: Japanese Unexamined Patent Application Publication No. 2002-150944

25

Patent Document 3: Japanese Unexamined Patent Application Publication No. 2006-004954

Patent Document 4: Japanese Unexamined Patent Application Publication No. 2001-006565

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Patent Document 5: Japanese Unexamined Patent Application Publication No. 2009-009822

**NON-PATENT DOCUMENTS**

Non-Patent Document 1: T. Ichikawa, et al., IDW' 08, MEMS 5-2 p. 1363 (2008)