

## 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>Myeong Ho NOH</td><td>06/08/2011</td></tr><tr><td>Choo Ho KIM</td><td>06/07/2011</td></tr><tr><td>Song Ho JEONG</td><td>06/07/2011</td></tr><tr><td>Dong Hee LIM</td><td>06/08/2011</td></tr></tbody></table> | Name                                     | Execution Date | Myeong Ho NOH       | 06/08/2011 | Choo Ho KIM | 06/07/2011 | Song Ho JEONG | 06/07/2011 | Dong Hee LIM | 06/08/2011 |  |
| Name                                                                                                                                                                                                                                                                                                       | Execution Date                           |                |                     |            |             |            |               |            |              |            |  |
| Myeong Ho NOH                                                                                                                                                                                                                                                                                              | 06/08/2011                               |                |                     |            |             |            |               |            |              |            |  |
| Choo Ho KIM                                                                                                                                                                                                                                                                                                | 06/07/2011                               |                |                     |            |             |            |               |            |              |            |  |
| Song Ho JEONG                                                                                                                                                                                                                                                                                              | 06/07/2011                               |                |                     |            |             |            |               |            |              |            |  |
| Dong Hee LIM                                                                                                                                                                                                                                                                                               | 06/08/2011                               |                |                     |            |             |            |               |            |              |            |  |
| RECEIVING PARTY DATA                                                                                                                                                                                                                                                                                       |                                          |                |                     |            |             |            |               |            |              |            |  |
| Name:                                                                                                                                                                                                                                                                                                      | SAMSUNG LED CO., LTD.                    |                |                     |            |             |            |               |            |              |            |  |
| Street Address:                                                                                                                                                                                                                                                                                            | 314, Maetan 3-dong, Yeongtong-gu         |                |                     |            |             |            |               |            |              |            |  |
| Internal Address:                                                                                                                                                                                                                                                                                          | Gyeonggi-do                              |                |                     |            |             |            |               |            |              |            |  |
| City:                                                                                                                                                                                                                                                                                                      | Suwon-si                                 |                |                     |            |             |            |               |            |              |            |  |
| State/Country:                                                                                                                                                                                                                                                                                             | REPUBLIC OF KOREA                        |                |                     |            |             |            |               |            |              |            |  |
| Postal Code:                                                                                                                                                                                                                                                                                               | 443-743                                  |                |                     |            |             |            |               |            |              |            |  |
| 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>13289693</td></tr></tbody></table>                                                                                                                                               | Property Type                            | Number         | Application Number: | 13289693   |             |            |               |            |              |            |  |
| Property Type                                                                                                                                                                                                                                                                                              | Number                                   |                |                     |            |             |            |               |            |              |            |  |
| Application Number:                                                                                                                                                                                                                                                                                        | 13289693                                 |                |                     |            |             |            |               |            |              |            |  |
| CORRESPONDENCE DATA                                                                                                                                                                                                                                                                                        |                                          |                |                     |            |             |            |               |            |              |            |  |
| Fax Number:                                                                                                                                                                                                                                                                                                | (202)293-7860                            |                |                     |            |             |            |               |            |              |            |  |
| Phone:                                                                                                                                                                                                                                                                                                     | 202-293-7060                             |                |                     |            |             |            |               |            |              |            |  |
| Email:                                                                                                                                                                                                                                                                                                     | sughrue@sughrue.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:                                                                                                                                                                                                                                                                                        | SUGHRUE MION, PLLC                       |                |                     |            |             |            |               |            |              |            |  |
| Address Line 1:                                                                                                                                                                                                                                                                                            | 2100 PENNSYLVANIA AVENUE, N.W.           |                |                     |            |             |            |               |            |              |            |  |
| Address Line 2:                                                                                                                                                                                                                                                                                            | SUITE 800                                |                |                     |            |             |            |               |            |              |            |  |
| Address Line 4:                                                                                                                                                                                                                                                                                            | WASHINGTON, DISTRICT OF COLUMBIA 20037   |                |                     |            |             |            |               |            |              |            |  |
| ATTORNEY DOCKET NUMBER:                                                                                                                                                                                                                                                                                    | Q127420                                  |                |                     |            |             |            |               |            |              |            |  |
| NAME OF SUBMITTER:                                                                                                                                                                                                                                                                                         | Sachiko Reynolds (Teams Dept Specialist) |                |                     |            |             |            |               |            |              |            |  |
| Total Attachments: 1<br>source=ASSIGNMENT_EXECUTED_AS_FILED#page1.tif                                                                                                                                                                                                                                      |                                          |                |                     |            |             |            |               |            |              |            |  |

OP \$40.00 13289693

PATENT

501714414

REEL: 027178 FRAME: 0977

## Assignment

Whereas, We, NOH, Myeong Ho of Cheongju-si, Republic of Korea; KIM, Choo Ho of Yongin-si, Republic of Korea; JEONG, Song Ho of Hwaseong-si, Republic of Korea; LIM, Dong Hee of Seoul, Republic of Korea, hereinafter called assignor(s), have invented certain improvements in

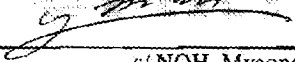

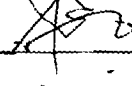

APPARATUS AND METHOD FOR AUTOMATICALLY MIXING PHOSPHOR  
and executed an application for Letters Patent of the United States of America therefor on \_\_\_\_\_; and

Whereas, SAMSUNG LED CO., LTD. , 314, Maetan 3-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-743, Republic of Korea (assignee), 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, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including 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 Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number \_\_\_\_\_ and Confirmation number \_\_\_\_\_, filed \_\_\_\_\_) the application number and filing date of said application when known.

|       |                                                                                     |            |
|-------|-------------------------------------------------------------------------------------|------------|
| Date: |  | 2011. 6. 8 |
|       | s/ NOH, Myeong Ho                                                                   |            |
| Date: |  | 2011. 6. 7 |
|       | s/ KIM, Choo Ho                                                                     |            |
| Date: |  | 2011. 6. 7 |
|       | s/ JEONG, Song Ho                                                                   |            |
| Date: |  | 2011. 6. 8 |
|       | s/ LIM, Dong Hee                                                                    |            |

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