01-09-2006



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103152266

Attorney's Docket No. 030681-901

103102200			
To the Director of the United States Patent and Trademark Office	e: Please record the attached original documents or copy thereof.		
Name of conveying party(ies):	2. Name and address of receiving party(ies):		
	Name:		
Jae-hee CHO	1) SAMSUNG ELECTRONICS CO., LTD.		
Jong-kyu KIM Cheol-soo SONE	O DENOCE AED DOLVIE OUNIO INICITIUTE		
E. Fred SCHUBERT	2) RENSSELAER POLYTECHNIC INSTITUTE		
E. Fled Schobert			
Additional name(s) of conveying party(ies) attached? Yes No	Address: 92		
3. Nature of conveyance:	1) 416, Maetan-dong, Yeongtong-gu		
■ Assignment	Suwon-si, Gyeonggi-do Republic of Korea		
☐ Security Agreement ☐ Change of Name	Republic of Rolea		
☐ Other	2) 110 8th Street		
	Troy, New York United States of America 12180-3590		
	United States of America 12100-3350		
Execution Date: December 27, 2005			
	Additional name(s) & addresses attached? Yes No		
Application number(s) or patent number(s):			
If this document is being filed together with a new application, the	ne execution date of the application is: December 27, 2005		
A. Patent Application No.(s)	B. Patent No.(s)		
Additional numbers attached?	Yes 🔀 No		
5. Name and address of party to whom correspondence	6. Total number of applications and patents involved:		
concerning document should be mailed:	o. Total number of applications and patents involved.		
Name: Charles F. Wieland III	7 T-4-16 (27 CED 2 44)		
Address:	7. Total fee (37 CFR 3.41)\$ \$40.00 (8021)		
Address.	☐ Enclosed		
Buchanan Ingersoll PC	Authorized to be charged to deposit account		
Including attorneys from Burns, Doane, Swecker & Mathis	Credit card. Form PTO-2038 is attached.		
Customer Number 2 1 8 3 9	Strong cards it control to 2000 to disastron.		
P.O. Box 1404	8. Deposit account number:		
Alexandria, VA 22313-1404			
	02-4800		
	(Attach duplicate copy of this page if paying by deposit account.)		
O. Statement and Signature			
9. Statement and Signature. To the best of my knowledge and belief, the foregoing information	on in true and correct and any attached convice a true conv		
of the original document.	on is true and correct and any attached copy is a true copy		
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Charles F. Wieland III 33,096	December 28, 2005		
Name of Person Signing Reg. No.	Signature Date		
Total number of pages including cover sheet, attachments, and decuments:			
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12/30/2005 FFANAEIA 00000064 11318557 04 FC:8021

Attorney Docket No. 030681-901

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by (1) Jae-hee CHO. (2) Jong-kvu KiM. (3) Checi-sop SONE, and (4) E. Fred SCHUBERT, reviding at (1) Yongin-si. Republic of Kores: (2) Trov. New York: (3) Anvengal. Republic of Kores: and (4) Trov. New York (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignore have invented certain new and useful improvements in <u>LED</u>
<u>DEVICE HAVING DIFFUSE REFLECTIVE SURFACE</u> set forth in an application for Letters Patent of the United States, which is a

(1)		provisional application			
	(2)		bearing Application No and filed on;		
	(b)		to be filed herewith; or		
(2) 🖾 non-provisional		non-	provisional application		
	(a)		bearing Application No, and filed on;		
	(b)	X	having an oath or declaration executed on even date herewith prior to filing of application;		
	(c)		having an eath or declaration executed on a different date than this Assignment; and		

WHEREAS, SAMSUNG ELECTRONICS CO. LTD. and RENSSELAER POLYTECHNIC INSTITUTE, corporations duly organized under and pursuant to the laws of Republic of Korag and United States of America and having principal places of business at 416. Maetan-dong, Yeongtong-au, Suwon-si, Gyeongal-do, Republic of Korag, and 110 8th Street. Troy, New York, United States of America 12180-3590, respectively (hereinafter referred to as "the Assignees"), are desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and Interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignore have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignees, their successors, legal representatives, and assigns the entire right, title, and interest in end to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in end to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in end to any and all applications claiming priority to said applications, divisions, continuations, and continuations—in-part of said applications, and reissues and axidensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignees, for its own use and behavior and the use and behavior of their successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and essignment not been made.

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assigness, their successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the

Buchanan Ingersoll PC

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PATENT REEL: 017421 FRAME: 0459

Application No. <u>Unassigned</u>
Attorney Docket No. <u>030681-901</u>

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, the Assignore hereby covenant and agree to and with the Assignees, their successors, legal representatives, and assigns that the Assignors will, whonever counsel of the Assignees, or the counsel of their successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and designable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and designable, 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 Letters Patent or Patents for said inventions, without charge to the Assignees, their successors, legal representatives, and assigns, but at the cost and expense of the Assignees, their successors, legal representatives, and assigns.

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoil PC (including attorneys from Burns, Doans, Swecker & Mathis) to insert in the spaces provided above the little of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to Issue any and all said Letters Patent of the United States to the Assignees as the Assignees of said invention, the Letters Patent to be issued for the sole use and behoof of the Assignees, their successors, legal representatives, and assigns.

DATE	27 December 2005	JAE-HEE CHO
DATE	27 December 2005	JONG-KYU KIM
DATE	27 December 2005	CHEOL-SOO SONE
DATE	27 December 2005	727 Schubert

Buchanan Ingersoll PC

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