FORM PTO-1595 (Rev. 6-93)	REC	02-06-2	003	HEET (J.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
OMB No. 0651-0011 (exp. 4/94)	***************************************				
To the Honorable Commis	1023584	.05 <u>ched original documents or copy thereof.</u>			
1. Name of conveying party(ies):		, 0200	2. Name and ad	ddress of receiving	party(ies):
Seong-Soo Lee Jae-Seung Hwang			Name: Sa	msung Electronics	, Co., Ltd.
Additional name(s) of conveying party(ies	attached?	□ Yes ⊠ No			1/39/
3. Nature of conveyance:			Street Address:	416, Maeta	n-dong, Paldal-gu,
37.1. 4.1.4.2 02 00.1.1 07.4.1.0.1				ty, Kyungki-do, Re	3
]Merger	<u> </u>	ry, rejuingar do, reo	puono or reorem
☐ Security Agreement		Change of Name	City:	Sta	ite ZIP
☐ Other					
Execution Date: Decemb	er 14, 2002		Additional name(s) & address attached?	□ Yes ⊠ No
4. Application number(s) or patent If this document is being filed toget A. Patent Application No.(s)	ther with a new a	pplication, the exec	B. Patent No.(s		December 14, 2002
		al numbers attached	 ?	No	
5. Name and address of party to w document should be mailed:	nce concerning	6. Total number of applications and registrations involved			
Name: Anthony P. Onello,	Jr.				
Internal Address: MILLS		7. Total fee (37 CFR 3.41) \$40.00			
•					
			☐ Authorize	ed to be charged to	deposit account
Street Address: Eleven I	Beacon Street, Su	ite 605	8. Deposit Acc	ount Number:	
City: Boston	State MA	ZIP 02108	(Attach duplicate o	copy of this page if payi	ing by deposit account)
02/06/2003 ECDOPER 00000049 10353635 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.					
Anthony P. Onello, Jr., Res Name of Person Signing Total number		Signature ag cover sheet, attac	hments, and docur	ment 3	Date Date

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks, Box Assignments Washington, D.C. 20231

J:\SAM\0387\PTO1595.wpd

Reference No.: SAM-0387

ASSIGNMENT

We, Seong-Soo Lee, of 210-1502, Hanshin Apt., #124, Imae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea; and Jae-Seung Hwang, of 643-703, Shinnamusil Shinwon Apt., Youngtong-dong, Paldal-gu, Suwon-si, Gyeonggi-do, Republic of Korea; having invented improvements in SHALLOW TRENCH ISOLATION METHOD AND METHOD FOR MANUFACTURING NON-VOLATILE MEMORY DEVICE USING THE SAME described in an application for Letters Patent of the United States, executed by us on even date herewith, for good and valuable consideration, receipt of which is hereby acknowledged from Samsung Electronics Co., Ltd., a Korean corporation having a place of business at 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea (and hereinafter called the Assignee, which term shall include its successors and assigns), do hereby sell, assign and transfer unto the Assignee our entire right, title, and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto, in and to and under said application (which term shall include hereinafter where the context so admits all divisional, continuing, reissue and other patent applications based thereon) and the inventions (which term shall include each and every such invention, or part thereof) therein described, and any and all patents and like rights of exclusion (including extensions thereof) of any country which may be granted on or for said inventions or on said application;

And for the same consideration We do also hereby sell, assign, and transfer unto the Assignee, all our rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and all other treaties of like purpose in respect of said inventions and said application, and We do hereby authorize the Assignee to apply in our name or its own name or its designee for patents and like rights of exclusion on or for said inventions in all countries, claiming (if the Assignee so desires) the priority of the filing date of said application under the provisions of said Convention, Treaty or any such other Convention or Treaty;

And for the same consideration, We do hereby agree for ourselves and for our heirs, executors, and administrators, promptly upon request of the Assignee to execute and deliver without further compensation any power of attorney, assignment, original, divisional, continuing, reissue or other application or applications for patent or patents or like rights of exclusion of any country, or other lawful documents and any further assurances that may be deemed necessary or desirable by the Assignee, fully to secure to it said right, title, and interest as aforesaid in and to said inventions, applications, and said several patents and like rights of exclusion (including extensions thereof) or any of them, all, however, at the expense of the Assignee, its successors, or assigns;

And We do hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America and the corresponding Official of each country foreign thereto to issue to the Assignee, any and all patents and like rights of exclusion which may be granted in any country upon said United States application on or for said inventions;

And We do hereby covenant for ourselves and our legal representatives and agree with the Assignee, that We have granted no right or license to make, use, or sell said inventions to anyone except the Assignee, that prior to the execution of this deed our right, title, and interest in and to said inventions has not been otherwise encumbered by us, and that We have not executed and will not execute any instruments in conflict herewith.

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Reference No.: SAM-0387

First or Sole Inventor:

Seong-Soo Lee Date: AFC 14, 2002

Second Joint Inventor:

Signature:

Jae-Seung Hwang

Date: ACC 14.2001

REFERENCE NO.: SAM-0387 J:\SAM\0387\assignment - mult inv.wpd

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PATENT REEL: 013719 FRAME: 0457