FORM PTO-1594 1-31-92 To the Honorable Commissioner of Patents and Trademarks:	12-29-2000 Department of Commerce it and Trademark Office tey Docket No. 05225.0170 101566969	
Please record the attached original documents or copy thereof. 1. Name of conveying parties: 1) Naoharu SUGIYAMA 2)Tomohisa MIZUNO 3) Shinichi TAKAGI 4) Atsushi KUROBE DEC 2 2 2000	2. Name and address of receiving party: Name: Kabushiki Kaisha Toshiba	
Additional name(s) of conveying party (ies) attached. Yes Image: Conveyance: 3. Nature of conveyance:	Internal Address: Street Address: 72, Horikawa-cho, Saiwai-ku Kawasaki-shi, Kanagawa-ken, Japan City:	
Image: Marger Image: Marger Image: Security Image: Security Image: Marger Image: Marger Image: Marger Image: Security Image: Marger Image: Security<	State: Zip Code:	
Other Execution Date: October 11, 2000 4. Application number or patent number: If this document is being fill	Additional name(s) & Address(es) attached? □ Yes ⊠ No ed together with a new application, the execution date of the	
application: A. Patent Application Number: 09/658,191	B. Patent Number:	
Additional numbers attact 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Mr. Ernest F. Chapman FINNEGAN, HENDERSON, FARABOW, GARRETT Internal Address: & DUNNER, L.L.P.	hed? □ Yes ⊠ No 6. Total number of applications and registrations involved: 1 7. Total fee (37 CFR 3.41): \$40 ⊠ Enclosed (Please charge deficiency to deposit account) □	
	Authorized to be charged to deposit account	
Street Address: 1300 I Street, N.W. City: Washington State: DC Zip: 20005-3315	8. Deposit account number: <u>06-0916</u>	
 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. 01/02/2001 DNGUYEN 00000172 09658191 		
01 FC:581 Richard V. Burguji 40:00 00 Registration No. 31,744 Signature Total number of pages including cover sheet)	

PATENT REEL: 011367 FRAME: 0188

JOINT INVENTION (U.S. Rights Only)

ASSIGNMENT

WHEREAS, We, the below named inventors, (hereinafter referred to as assignors, have made an invention entitled:

SEMICONDUCTOR DEVICES AND METHODS FOR PRODUCING SEMICONDUCTOR DEVICES

for which we executed an application for United States Letters Patent concurrently herewith or on ______ or filed an application for United States Letters Patent on ________); and

WHEREAS, Kabushiki Kaisha Toshiba, a corporation of Japan, whose post office address is 72, Horikawa-cho, Saiwai-ku, Kawasaki-shi, Kanagawa-ken, Japan (hereinafter referred to as assignee), is desirous of securing the entire right, title, and interest in and to this invention, the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from assignee is hereby acknowledged, we, as assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the assignee, its lawful successors and assigns, our entire right, title, and interest in and to this invention and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue all Letters Patent for this invention to assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY further covenant and agree that we will, without further consideration, communicate with assignee, its successors and assigns, any facts known to us respecting this invention and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver all papers that may be necessary or desirable to perfect the title to this invention in said assignee, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States, it being understood that any expense incident to the execution of such papers shall be borne by the assignee, its successors and assigns.

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

PATENT REEL: 011367 FRAME: 0189 AND, WE HEREBY authorize and request the attorneys we have empowered in the Declaration and Power of Attorney in this application, to insert here in parentheses (Application No._____, filed _____) the filing date and application number of said application when known.

IN TESTIMONY WHEREOF, we have hereunto set our hands.

First Assignor

Naoharu SUGIYAMA c/o Intellectual Property Division, Toshiba Corporation, 1-1-1, Shibaura, Minato-ku Tokyo, Japan

Citizenship:	Japan	
Signature:	Macharn (in	5. yama
Date:	Öctober 11,	+c-c-c

Second Assignor

Tomohisa MIZUNO c/o Intellectual Property Division, Toshiba Corporation, 1-1-1, Shibaura, Minato-ku Tokyo, Japan

Citizenship:	Japan
Signature:	/ Enclose Maprill
Date:	Ed. 11, 2800

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Third Assignor

Shinichi TAKAGI c/o Intellectual Property Division, Toshiba Corporation, 1-1-1, Shibaura, Minato-ku Tokyo, Japan

Citizenship:	Japan	
Signature:	Shinichi Jakogi	
Date:	October 11, 2000	

Fourth Assignor

L

Citizenship:	Japan
Signature:	Aprila Cart
Date:	Cet 11, 2000

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

RECORDED: 12/22/2000