Ī U.S. DEPARTMENT OF COMMERCE FORM PTO-1596 Patent and Trademark Office 1-31-92 Docket No.: 50090-109 100945786 .ttached original documents or copy thereto: To the Honorable Commissioner of Paucius and 1. Name of Conveying Party(ies): Name and address of receiving party(ies): Mitsubishi Denki Kabushiki Kaisha Takeru MATSUOKA Name: 2-3, Marunouchi 2-chome, Chiyoda-ku Address: Additional name(s) of conveying party(ies) attached? Yes Tokyo 100-8310, JAPAN 3. Nature of Conveyance: Merger Change of Name Security Agreement Other December 1, 1998 Execution Date: Additional name(s) & address(es) attached? Yes 4. Application number(s) or patent number(s): December 1, 1998 If the document is being filed together with a new application, the execution date of the application is: B. Patent No(s). A. Patent Application No(s). Additional numbers attached? Yes 1 6. Total number of applications and patents involved: 5. Name and address of party to whom correspondence concerning document should be mailed: \$40.00 Name: MCDERMOTT, WILL & EMERY 7. Total fee (37 CFR 3.41) Internal Address: Enclosed Authorized to be charged to deposit account 600 13th Street, N.W. Street Address: 8. Deposit account number: 500417 DC 20005 City: Washington State: Zip: 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. Arthur J. Steiner, 26,106 January 7, 1999 Signature

Total number of pages comprising cover sheet: Date Name and Registration No. of Person Signing 15/1999 JWATKINS OODOOL CMB No. 0851-0011 (exp. 4/94)

> PATENT REEL: 9698 FRAME: 0906

Docket No.: 50090-109

ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

Takeru Matsuoka

who has made a certain new and useful invention, hereby sells, assigns and transfers unto

Mitsubishi Denki Kabushiki Kaisha 2-3, Marunouchi 2-chome Chiyoda-ku, Tokyo 100-8310 JAPAN

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING THE SAME

for which an application for United States Letters Patent was executed on even date herewith,

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefor and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

INVENTOR

Vakeru matsuoka

DATE SIGNED

Name: Takeru Matsuoka

December 1, 1998

PATENT REEL: 9698 FRAME: 0907

RECORDED: 01/07/1999