Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450			RECORDATION FORM COVER SHEET PATENTS ONLY U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office Attorney Docket No. 158950				
Please record the attached document. Total number of pages including cover sheet, attachments, and document: 2							
3.	A. Nature of conveyance: ☐ Assignment ☐ Security Agreement ☐ Other	A ROSE conveying party(ies) attached? ☐ Yes ☒ No ☐ Merger ☐ Change of Name	2. A. Name and address of receiving party: HITACHI KOKUSAI ELECTRIC INC. 14-1, SOTOKANDA 4-CHOME, CHIYODA-KU, TOKYO 1018980 JAPAN B. Additional name(s) & address(es) attached? □Yes ☒ No				
4.	A. Patent Application No.	Additional numbers attac	_				
	C. Title of Application: METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE, SUBSTRATE PROCESSING METHOD AND SUBSTRATE PROCESSING APPARATUS						
5.	P.O. Bo Alexandria, V Phone Numbe Fax Number		 6. Total number of applications and patents involved: 1 7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00. 8. Credit any overpayment or charge any underpayment to deposit account number 15-0461. 				
9.	Statement and signature. To the best of my knowledge original document. James A. Oliff, Registration Todd M. Guise, Registration Roane T. Noel, Registration	No. 27,075 No. 46,748	n is true and correct and any attached copy is a true copy of the Date: October 29, 2013				

PATENT REEL: 031550 FRAME: 0332

RECORDED: 10/29/2013

ASSIGNMENT

	Insert	(1)	Yosuke OTA	(2)	Yeshiro HIROSE
(1-8)	Legal Name(s)	(3)		(4)	
	of Inventor(s)	(5)		(6)	
		(7)		(8)	
		the un		ufficiency of which are	r good and valuable consideration paid to each of hereby acknowledged, each undersigned agrees to
(9)	Insert Name of Assignce	(9) HITACHI KOKUSAI ELECTRIC INC.			
(10)	Insert Address of Assignee	(10)	14-1, Sotokanda 4-chon	e, Chiyoda-ku, Tokyo	1018980 Japan
		the ent inventi contin	ire right, title and interest f ion, and in all applications (or the United States of A for patent including any tute and reissue applicat	eirs, successors, assigns and legal representatives, America as defined in 35 U.S.C. § 100, in the and all provisional, non-provisional, divisional, ion(s), and all Letters Patent, extensions, reissues invention known as
(11)	Insert Identification such as Title, Case	(11)	METHOD OF MANUFA	ACTURING SEMICON	DUCTOR DEVICE, SUBSTRATE
	Number, or Foreign Application Number		PROCESSING METHO	D AND SUBSTRATE	PROCESSING APPARATUS
		(Attor	ney Docket No. 158	950),	filed on even date herewith or as
(12)	Alternative	(12)	U.S. Application Number	14/066,819	
	Identification for filed applications	filed	•		

Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.
 Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interferenceor post-grant proceeding.
 Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with

claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.

5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.

6) Each undersigned hereby grants the firm of OLIFF & BERRIDGE, FLCthe power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date .	October 16,2013	Inventor Signature	rosuke Ota	(SEAL)					
Date .	October 16. 2013	Inventor Signature	Yoshiro Hirose	(SEAL)					
Date .		Inventor Signature		(SEAL)					
Date .		Inventor Signature		(SEAL)					
Date		Inventor Signature		(SEAL)					
Date		Inventor Signature		(SEAL)					
Date		Inventor Signature		(SEAL)					
Date .		Inventor Signature		(SEAL)					
This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:									
		•							
Date	Providence in the second of th	Witness	Many Assessment of the Control of th						
Date .		Witness							
	•								

PATENT REEL: 031550 FRAME: 0333