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/+16	CANTALLY TO BESTS-1450	Attorney Docket No. 156392					
Please record the attached document.							
Total number of pages including cover sheet, attachments, and document: 6							
J.	A. Name of conveying parties;	2. A. Name and address of receiving party:					
	[1] Tsutomu OGIHARA[2] Takafumi UEDA[3] Seiichiro TACHIBANA[4] Yoshinori TANEDA	SHIN-ETSU CHEMICAL CO., LTD. 6-1, OHTEMACHI 2-CHOME, CHIYODA-KU, TOKYO, JAPAN					
	B. Additional name(s) of conveying party(ics) attached? ☐ Yes ☒ No	B. Additional name(s) & address(es) aπached? ☐Yes ☑ No					
3,	A. Nature of conveyance:						
	★ Assignment						
	☐ Security Agreement ☐ Change of Name						
	Other						
	B. Execution Date: [ALL] MARCH 1, 2013						
4.	A. Patent Application No. 13/780,999	B. Patent No.					
	Additional numbers atta	ched? 🔲 Yes 🗵 No					
	C. Title of Application: <u>PATTERNING PROCESS</u>						
5.	Name and address of party to whom correspondence	6. Total number of applications and patents involved: 1					
	Name: William P. Berridge Address: OLIFF & BERRIDGE, FLC	7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00.					
	P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787	Credit any overpayment or charge any underpayment to deposit account number 15-0461.					
9.	Statement and signature. To the best of my knowledge and belief, the foregoing information original document. William P. Berridge, Registration No. 30,024 Roane T. Noel, Registration No. 63,004 Todd M. Guise, Registration No. 46,748	on is true and correct and any attached copy is a true copy of the Date: March 29, 2013					
	- Control de entendo condition autorità de la control de						

IBM DOCKET NUMBER:

ASSIGNMENT

Whereas, the undersigned Inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") in:

Title of the Invention: PATTERNING PROCESS

and further identified by the IBM Docket Number provided above in the header of this Assignment, for which an application for a United States Patent was executed concurrently herewith or was filed having:

Serial Number: 13/780,999 (insert series code and serial number here if/when available)

Whereas, SHIN-ETSU Chemical Company, Ltd., having a place of business at 6-1, Ohtemachi 2-Chome, Chiyoda-Ku, Tokyo, Japan (herein referred to as "SHIN-ETSU"), desires to acquire, and each undersigned Inventor desires to grant to SHIN-ETSU, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto:

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned Inventor ("ASSIGNOR") hereby sells, assigns, and otherwise transfers to SHIN-ETSU (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned Inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to SHIN-ETSU, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by SHIN-ETSU, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned Inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in SHIN-ETSU, its successors, legal representatives, and assigns, whenever requested by SHIN-ETSU, its successors, legal representatives, or assigns.

Each undersigned Inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to SHIN-ETSU and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned Inventor also hereby grants SHIN-ETSU, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent application Serial Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the country of Japan, and any disputes will be resolved in a Japanese court.

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	Executed by Inventor 1 of 4	
Tsutomu Ogihara		

Signature: Tsutomu Ogihara Date: March 1, 2013

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Takafumi Ueda
Signature: Takafumi Ueda Date: March 1, 2013

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Executed by Inventor 3 of 4

Seiichiro Tachibana

Signature: Sieichus Jachhong Date: March 1. 20/3

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Yoshinori Taneda

Signature: Yoshinori Taneda Date: March 1, 2013

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PATENT REEL: 030128 FRAME: 0643

RECORDED: 03/29/2013