504660327 11/28/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4707049

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Shoji AKIYAMA	11/14/2017
Makoto KAWAI	11/14/2017

RECEIVING PARTY DATA

Name:	Shin-etsu Chemical Co., Ltd.	
Street Address:	et Address: 6-1, Ohtemachi 2-chome	
Internal Address:	Chiyoda-ku	
City:	Tokyo	
State/Country:	Japan	
Postal Code:	100-0004	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15577683

CORRESPONDENCE DATA

Fax Number: (703)836-2787

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided: if that is unsuccessful, it will be sent via US Mail

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 703-836-6400

Email: email@oliff.com

Correspondent Name: AARON L. WEBB

Address Line 1: OLIFF PLC

Address Line 2: P.O. BOX 320850

Address Line 4: ALEXANDRIA, VIRGINIA 22320-4850

ATTORNEY DOCKET NUMBER:	179306
NAME OF SUBMITTER:	KARLI M. COLLINS
SIGNATURE:	/Karli M. Collins/
DATE SIGNED:	11/28/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 2

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PATENT 504660327 REEL: 044240 FRAME: 0180

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

	Insert	(1)	Shoji AKIYAMA	(2)	Makoto KAWAI
(1-8)	Legal Name(s)	(3)		(4)	
	of Inventor(s)	(5)		(6)	
		(7)		(8)	
		the und	sideration of the sum of one dolla dersigned, the receipt and sufficie and hereby does assign, transfer	ency of which are l	r good and valuable consideration paid to each of hereby acknowledged, each undersigned agrees to
(9)	Insert Name of Assignee	(9)	SHIN-ETSU CHEMICAL CO	., LTD.	
(10)	Insert Address of Assignee	(10)	6-1, Ohtemachi 2-chome, Chi	yoda-ku, Tokyo 1	00-0004, Japan
Insert Identification (11) such as Title, Case		the ent invent contin	ire right, title and interest for the ion, and in all applications for pa uation, international, substitute a examination certificates that may	United States of A tent including any nd reissue applicat be granted on the	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 VAFER HAVING OXIDE SINGLE-CRYSTAL
	Number, or Foreign Application Number	(Attor	ney Docket No. 179306),	filed on even date herewith or as
(12)	Alternative	(12)	U.S. Application Number1	5/577,683	
	Identification for filed applications	filed	November 28, 2017		
declare and goi	ute separate assignments in 2) Each undersigned agred d concerning any application ng forward with such interfo	connection ses to execut n or patent serence or p ses to execut	with such applications and pat- ute all papers necessary in conn for the invention and to cooper	ents as the Assign ection with any in ate with the Assign of perform any act	iterference or post-grant proceeding which may be thee in every way possible in obtaining evidence t which may be necessary in connection with

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 Assignce, 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 PLC the 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.

(13) Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

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

Date	November 14, 2017	Inventor Signature	Shop ADujana	_ (SEAL)
Date	November 14, 2017	Inventor Signature	Shoji AKIYAMA Makoto KAWAI	_ (SEAL)
Date		Inventor Signature		(SEAL)
Date	<u> </u>	Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Şignature		(SEAL)
neither	This assignment should preferably be signed , then it should be signed before at least two wi	before: (a) a Notary Pu tnesses who also sign l	ublic if within the U.S.A. (b) a U.S. Consul if outside nere:	the U.S.A. II
Date	November 14, 2017	Witness	Posts Motor	
25 (-	November 14, 2017	Witness	/tidefi Kawarm	