

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5601868

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SHOJI AKIYAMA	05/24/2019
SHOZO SHIRAI	05/31/2019
MASAYUKI TANNO	05/29/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SHIN-ETSU CHEMICAL CO., LTD.
<b>Street Address:</b>	6-1, OHTEMACHI 2-CHOME, CHIYODA-KU
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	100-0004
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16475528
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)716-1180
<i>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.</i>	
<b>Phone:</b>	703-716-1191
<b>Email:</b>	gbpatent@gbpatent.com
<b>Correspondent Name:</b>	GREENBLUM & BERNSTEIN, P.L.C.
<b>Address Line 1:</b>	1950 ROLAND CLARKE PLACE
<b>Address Line 4:</b>	RESTON, VIRGINIA 20191
<b>ATTORNEY DOCKET NUMBER:</b>	P58297
<b>NAME OF SUBMITTER:</b>	DANIEL B. MOON
<b>SIGNATURE:</b>	/Daniel B. Moon/
<b>DATE SIGNED:</b>	07/02/2019
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 4</b>	
source=P58297_As#page1.tif	
source=P58297_As#page2.tif	
source=P58297_As#page3.tif	



**COMBINED INVENTOR'S DECLARATION AND ASSIGNMENT****DECLARATION**

The herein-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

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.

**Authorization to Permit Access to Application by Participating Office**

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the herein-identified patent application is filed access to the herein-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the herein-identified patent application is filed to have access to the herein-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the herein-identified patent application with respect to: 1) the herein-identified patent application-as-filed; 2) any foreign application to which the herein-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the herein-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the herein-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

The undersigned hereby authorizes the U.S. attorney or agent appointed herein to accept and follow instructions from either his foreign patent agent or corporate representative, if any, as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned.

Direct Correspondence to: **CUSTOMER NUMBER 07055**

At: Greenblum & Bernstein, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191

Direct Telephone Calls to: Greenblum & Bernstein, P.L.C. (703) 716-1191

**ASSIGNMENT**

WHEREAS Shoji AKIYAMA, a resident of Annaka-shi, Gunma-ken, JAPAN, whose mailing address is c/o Advanced Functional Materials Research Center, Shin-Etsu Chemical Co., Ltd., 13-1, Isobe 2-chome, Annaka-shi, Gunma 379-0195 Japan,  
Shozo SHIRAI, a resident of Takasaki-shi, Gunma-ken, JAPAN, whose mailing address is c/o Advanced Functional Materials Research Center, Shin-Etsu Chemical Co., Ltd., 13-1, Isobe 2-chome, Annaka-shi, Gunma 379-0195 Japan,  
Masayuki TANNO, a resident of Annaka-shi, Gunma-ken, JAPAN, whose mailing address is c/o Advanced Functional Materials Research Center, Shin-Etsu Chemical Co., Ltd., 13-1, Isobe 2-chome, Annaka-shi, Gunma 379-0195 Japan, hereinafter referred to as the ASSIGNOR, has invented a certain improvement relating to

**COMPOSITE SUBSTRATE AND METHOD OF MANUFACTURING COMPOSITE SUBSTRATE**

for which he has executed, on the same date as this assignment, an application for Letters Patent for the United States to be filed in the United States Patent and Trademark Office.

If this Assignment is filed after the filing date of the above-identified application, the undersigned hereby authorize and request any one of the practitioners of record in this application associated with Customer No. 07055 including Neil F. Greenblum, Reg. No. 28,394, Bruce H. Bernstein, Reg. No. 29,027, Arnold Turk, Reg. No. 33,094, James L. Rowland, Reg. No. 32,674, Stephen M. Roylance, Reg. No. 31,296, Leslie J. Paperner, Reg. No. 33,329, William Pieprz, Reg. No. 33,630, Robert W. Mueller, Reg. No. 35,043, William E. Lyddane, Reg. No. 41,568 and William S. Boshnick, Reg. No. 44,550, of the firm Greenblum & Bernstein, P.L.C., whose address is 1950 Roland Clarke Place, Reston, Virginia 20191, to insert here in parenthesis (Application No. \_\_\_\_\_, filed \_\_\_\_\_) the filing date and application number of said application when known.

AND WHEREAS, Shin-Etsu Chemical Co., Ltd., a corporation organized and existing under the laws of JAPAN, whose mailing address is 6-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan, hereinafter known as the ASSIGNEE, is desirous of acquiring the entire right, title and interest for the United States in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations, and prolongations thereof.

NOW, THIS WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, said ASSIGNOR hereby assigns, sells and transfers to said ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, for the United States including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor and all rights to sue for past and future infringement thereunder, said ASSIGNEE and its assigns and legal representatives to have, hold, exercise and enjoy the said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations, and prolongations thereof, with all the rights,

powers, privileges, and advantages in any ways arising from or pertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations, and prolongations thereof, for the use and benefit of said ASSIGNEE and its assigns and legal representatives in as ample and beneficial a manner to all intents and purposes as the said ASSIGNOR might or could have held and enjoyed the same, if this assignment had not been made.

AND said ASSIGNOR hereby agrees to execute all papers necessary to file applications in the United States for said invention and to assign the same to said ASSIGNEE, or any assignee acquiring title to said invention, and to execute any other papers that may be needed in connection with filing said application and securing Letters Patent thereon.

AND said ASSIGNOR authorizes and requests the Commissioner of Patents to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said ASSIGNEE, its assigns and legal representatives, in accordance herewith.

IN TESTIMONY WHEREOF, this assignment is executed by said ASSIGNOR, on the date indicated below.

First Witness (Optional):

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Date)

Shoji Akiyama  
Shoji AKIYAMA

2019 May 27<sup>th</sup>  
Date

Second Witness (Optional):

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Date)

S. Shirai  
Shozo SHIRAI

May 31 2019  
Date

Third Witness (Optional):

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Date)

*Masayuki Tanno*  
\_\_\_\_\_  
Masayuki TANNO

*29th May 2019*  
\_\_\_\_\_  
Date