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9. Signature:

James E_Armstrong, IV - 42,266

Name of Person Signing

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03/21/2011 Form PTO-1595 (Rev 01-09) U.S. DEPARTMENT OF COMMERCE OMB No 0651-0027 (exp 02/28/2009) United States Patent and Trademark Office 103620295 To the Director of the U.S. Patent and Trademark Office. Please record the attached documents or the new address(es) below 1. Name of conveying party(ies): 2. Name and address of receiving party(ies) Kazuaki Higuchi (12/07/2010) and Hideki Otsuki FUSO CHEMICAL CO, LTD (12/07/2010)Internal Address Additional name(s) of conveying party(ies) attached? Yes X No Street Address 3. Nature of conveyance/Execution Date(s): 3-10, Koraibashi 4-chome, Chuo-ku Execution Date(s) in parentheses after inventor name Osaka-shi, 5410043, JAPAN x |Assignment Merger Change of Name Security Agreement Joint Research Agreement City Government Interest Assignment Executive Order 9424, Confirmatory License Zip Additional name(s) & address(es) x No attached? 4. Application or patent number(s): X This document is being filed together with a new application A Patent Application No (s) B Patent No (s) This application Additional numbers attached? Yes x No 5. Name and address to whom correspondence 6. Total number of applications and concerning document should be mailed: patents involved: Name James E Armstrong, IV **EDWARDS ANGELL PALMER & DODGE** LLP 7. Total fee (37 CFR 1 21(h) & 3 41) \$ 40 00 Internal Address Atty Dkt 88243(302610) Street Address PO Box 55874 Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) Boston City 8. Payment Information State 02205 Zip Phone Number (202) 478-7375 Fax Number (866) 658-1050 Deposit Account Number 04-1105 Email Address jarmstrong@eapdlaw.com Authorized User Name James E Armstrong, IV

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ASSIGNMENT BY INVENTOR

THIS ASSIGNMENT, made this 7th day of December, 2010, by
1) Kazuaki HIGUCHI, and 2) Hideki OTSUKI (hereinafter referred to as Assignor),
residing at 1)-2) c/o Kyoto Research Center of Kyoto First Factory, Kyoto Plant of FUSO
CHEMICAL CO., LTD., 5, Osadano-cho 1-chome, Fukuchiyama-shi, Kyoto 6200853,
Japan;

WHEREAS, Assignor has invented certain new and useful improvements in COLLOIDAL SILICA CONTAINING SILICA SECONDARY PARTICLES HAVING BENT STRUCTURE AND/OR BRANCHED STRUCTURE, AND METHOD FOR PRODUCING SAME

set forth in a Patent application for Letters Patent of the United States, filed herewith or if not filed herewith, being earlier filed on and having Serial No. ; and

WHEREAS, FUSO CHEMICAL CO., LTD., a large entity organized under and pursuant to the laws of Japan having its principal place of business at 3-10, Koraibashi 4-chome, Chuo-ku, Osaka-shi, Osaka 5410043, Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.

AND for the same consideration, Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

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AND for the same consideration, Assignor hereby covenants and agrees to and with Assignee, its successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grants the following individuals the power to insert on this Assignment any further identification which 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:

EDWARDS ANGELL PALMER & DODGE LLP

All practitioners at Customer Number 21874

AND Assignor acknowledges an obligation of assignment of this invention to Assignee at the time the invention was made.

7/December/2010	L. Niguch	
Date	Name: Kazuaki HIGUCHI	
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7/ December / 2010	I. Otenke	
Date	Name:Hideki OTSUKI	

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RECORDED: 03/17/2011