

# PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

| SUBMISSION TYPE:   | NEW ASSIGNMENT                        |               |                                       |                     |                         |                   |            |             |            |                |       |
|--|---------------------------------------|---------------|---------------------------------------|---------------------|-------------------------|-------------------|------------|-------------|------------|----------------|-------|
| NATURE OF CONVEYANCE:  | ASSIGNMENT                            |               |                                       |                     |                         |                   |            |             |            |                |       |
| <b>CONVEYING PARTY DATA</b>  |                                       |               |                                       |                     |                         |                   |            |             |            |                |       |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Kazuyoshi Yaguchi</td> <td>01/09/2008</td> </tr> <tr> <td>Kojiro Abe</td> <td>01/09/2008</td> </tr> <tr> <td>Masaru Ohto</td> <td>01/09/2008</td> </tr> </tbody> </table>                            |                                       | Name          | Execution Date                        | Kazuyoshi Yaguchi   | 01/09/2008              | Kojiro Abe        | 01/09/2008 | Masaru Ohto | 01/09/2008 |                |       |
| Name   | Execution Date                        |               |                                       |                     |                         |                   |            |             |            |                |       |
| Kazuyoshi Yaguchi  | 01/09/2008                            |               |                                       |                     |                         |                   |            |             |            |                |       |
| Kojiro Abe   | 01/09/2008                            |               |                                       |                     |                         |                   |            |             |            |                |       |
| Masaru Ohto  | 01/09/2008                            |               |                                       |                     |                         |                   |            |             |            |                |       |
| <b>RECEIVING PARTY DATA</b>  |                                       |               |                                       |                     |                         |                   |            |             |            |                |       |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>Mitsubishi Gas Chemical Company, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>5-2, Marunouchi 2-chome</td> </tr> <tr> <td>Internal Address:</td> <td>Chiyoda-ku</td> </tr> <tr> <td>City:</td> <td>Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> </table> |                                       | Name:         | Mitsubishi Gas Chemical Company, Inc. | Street Address:     | 5-2, Marunouchi 2-chome | Internal Address: | Chiyoda-ku | City:       | Tokyo      | State/Country: | JAPAN |
| Name:  | Mitsubishi Gas Chemical Company, Inc. |               |                                       |                     |                         |                   |            |             |            |                |       |
| Street Address:  | 5-2, Marunouchi 2-chome               |               |                                       |                     |                         |                   |            |             |            |                |       |
| Internal Address:  | Chiyoda-ku                            |               |                                       |                     |                         |                   |            |             |            |                |       |
| City:  | Tokyo                                 |               |                                       |                     |                         |                   |            |             |            |                |       |
| State/Country:   | JAPAN                                 |               |                                       |                     |                         |                   |            |             |            |                |       |
| <b>PROPERTY NUMBERS Total: 1</b>   |                                       |               |                                       |                     |                         |                   |            |             |            |                |       |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11917646</td> </tr> </tbody> </table>  |                                       | Property Type | Number                                | Application Number: | 11917646                |                   |            |             |            |                |       |
| Property Type  | Number                                |               |                                       |                     |                         |                   |            |             |            |                |       |
| Application Number:  | 11917646                              |               |                                       |                     |                         |                   |            |             |            |                |       |
| <b>CORRESPONDENCE DATA</b>   |                                       |               |                                       |                     |                         |                   |            |             |            |                |       |
| Fax Number: (703)312-6666<br><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i><br>Phone: 703-312-6600<br>Email: rperez@antonelli.com<br>Correspondent Name: ANTONELLI, TERRY, STOUT & KRAUS, LLP<br>Address Line 1: 1300 NORTH SEVENTEENTH STREET<br>Address Line 2: SUITE 1800<br>Address Line 4: ARLINGTON, VIRGINIA 22209-3873                               |                                       |               |                                       |                     |                         |                   |            |             |            |                |       |
| ATTORNEY DOCKET NUMBER:  | 396.48293X00                          |               |                                       |                     |                         |                   |            |             |            |                |       |
| NAME OF SUBMITTER:   | William I. Solomon                    |               |                                       |                     |                         |                   |            |             |            |                |       |
| Total Attachments: 1<br>source=Assignment#page 1.tif   |                                       |               |                                       |                     |                         |                   |            |             |            |                |       |

OP \$40.00 11917646

**501054404**

**PATENT**  
**REEL: 023718 FRAME: 0925**

# ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, as a below named inventor, I hereby sell and assign to Mitsubishi Gas Chemical Company, Inc. of 5-2, Marunouchi 2-chome, Chiyoda-ku, Tokyo, Japan its successors and assigns or other legal representatives all my rights, title and interest, in and for the United States of America, in and to

Etching Composition for Metal Material and Method for Manufacturing Semiconductor Device by Using Same

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed by me even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Mitsubishi Gas Chemical Company, Inc.

, its successors, assigns or other legal representatives, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Mitsubishi Gas Chemical Company, Inc.

- 1) Date January 9, 2008 Inventor (Full Name) Kazuyoshi YAGUCHI (Signature) Kazuyoshi Yaguchi  
Residence Tokyo, Japan Citizenship Japan  
Post Office Address c/o Mitsubishi Gas Chemical Company, Inc., Tokyo Research Laboratory,  
1-1, Niijuku 6-chome, Katsushika-ku, Tokyo, Japan
- 2) Date January 9, 2008 Inventor Kojiro ABE Kojiro Abe  
Residence Chiba, Japan Citizenship Japan  
Post Office Address c/o Mitsubishi Gas Chemical Company, Inc., Tokyo Research Laboratory,  
1-1, Niijuku 6-chome, Katsushika-ku, Tokyo, Japan
- 3) Date January 9, 2008 Inventor Masaru OHTO Masaru Ohto  
Residence Chiba, Japan Citizenship Japan  
Post Office Address c/o Mitsubishi Gas Chemical Company, Inc., Tokyo Research Laboratory,  
1-1, Niijuku 6-chome, Katsushika-ku, Tokyo, Japan
- 4) Date \_\_\_\_\_ Inventor \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
Post Office Address \_\_\_\_\_

Witness(es)

All) \_\_\_\_\_ 2) \_\_\_\_\_ 4) \_\_\_\_\_  
1) \_\_\_\_\_ 3) \_\_\_\_\_ 5) \_\_\_\_\_

PATENT

RECORDED: 12/30/2009

REEL: 023718 FRAME: 0926