# PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

## SUBMISSION TYPE:
NEW ASSIGNMENT

## NATURE OF CONVEYANCE:
ASSIGNMENT

## CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryujiro NAGASAKA</td>
<td>09/24/2011</td>
</tr>
<tr>
<td>Tatsuya HISHIKI</td>
<td>08/30/2011</td>
</tr>
<tr>
<td>Ichiro WADA</td>
<td>08/25/2011</td>
</tr>
</tbody>
</table>

## RECEIVING PARTY DATA

<table>
<thead>
<tr>
<th>Name:</th>
<th>NGK Insulators, Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address:</td>
<td>2-56, Suda-Cho, Mizuho-Ku</td>
</tr>
<tr>
<td>City:</td>
<td>Nagoya-City, Aichi-Prefecture</td>
</tr>
<tr>
<td>State/Country:</td>
<td>JAPAN</td>
</tr>
<tr>
<td>Postal Code:</td>
<td>467-8530</td>
</tr>
</tbody>
</table>

## PROPERTY NUMBERS Total: 1

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Number:</td>
<td>13242552</td>
</tr>
</tbody>
</table>

## CORRESPONDENCE DATA

Fax Number: (315)233-8320  
Phone: 315-233-8300  
Email: Ivanantwerp@burrandbrown.com  
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.  
Correspondent Name: BURR & BROWN  
Address Line 1: PO BOX 7068  
Address Line 4: SYRACUSE, NEW YORK 13261-7068

## ATTORNEY DOCKET NUMBER:
791_559

## NAME OF SUBMITTER:
Stephen P. Burr

Total Attachments: 3  
sources=Assignment#page1.tif  
sources=Assignment#page2.tif  
sources=Assignment#page3.tif
ASSIGNMENT

Ryujiro NAGASAKA
(Inventor 1)

Tatsuya HISHIKI
(Inventor 2)

Ichiro WADA
(Inventor 3)

In consideration of the sum of dollar ($1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to

Name of Assignee: NGK Insulators, Ltd.

Address of Assignee: 2-56, Suda-cho, Mizuho-ku, Nagoya-city, Aichi-prefecture, 467-8530, Japan

(Hereinafter designated as the Assignee) the entire right, title and interest for the United States, its territories, dependencies and possessions, in the invention, and all applications for patent and any Letters Patent which may be granted therefor, known as

METHOD OF MANUFACTURING SILICA MEMBRANE

(Identification of Invention, such as Title, Case Number or Foreign Application Number)

(10P00045 US01 / WA-1729 US(PCT))
for which the undersigned have executed an application for patent in the United States of America

on ____________________________

(Insert Date of Signing of Application)

U.S. Application(s) Serial Number(s) ______________ filed ______________

(Alternative identification)

1) The undersigned agree(s) to execute all papers necessary in connection with the application and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.
6) The undersigned hereby grant(s) the firm of BURR & BROWN 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 recordation of this document.

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/24/2011</td>
<td>Ryūjirō NAGASAKA (SEAL)</td>
</tr>
<tr>
<td>8/30/2011</td>
<td>Tatsuya HISHIKI (SEAL)</td>
</tr>
<tr>
<td>8/25/2011</td>
<td>Ichiro WADA (SEAL)</td>
</tr>
<tr>
<td></td>
<td>(SEAL)</td>
</tr>
<tr>
<td></td>
<td>(SEAL)</td>
</tr>
<tr>
<td></td>
<td>(SEAL)</td>
</tr>
</tbody>
</table>

(10P00045 US01 / WA-1729 US(PCT))

Page 3 of 3

RECORDED: 09/23/2011

PATENT

REEL: 026959 FRAME: 0584