

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Kouhei YOSHIKAWA</td> <td>01/20/2012</td> </tr> <tr> <td>Shinichiro YAMAMOTO</td> <td>01/20/2012</td> </tr> </tbody> </table>		Name	Execution Date	Kouhei YOSHIKAWA	01/20/2012	Shinichiro YAMAMOTO	01/20/2012				
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<table border="1"> <tr> <td>Name:</td> <td>Sumitomo Electric Industries, Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>5-33, Kitahama 4-chome, Chuo-ku</td> </tr> <tr> <td>City:</td> <td>Osaka-shi, Osaka</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>541-0041</td> </tr> </table>		Name:	Sumitomo Electric Industries, Ltd.	Street Address:	5-33, Kitahama 4-chome, Chuo-ku	City:	Osaka-shi, Osaka	State/Country:	JAPAN	Postal Code:	541-0041
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PROPERTY NUMBERS Total: 1											
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Application Number:	13393501										
CORRESPONDENCE DATA											
Fax Number:	(202)344-8300										
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ATTORNEY DOCKET NUMBER:	120257-328482										
NAME OF SUBMITTER:	Michael A. Sartori, Ph.D.										
<p>Total Attachments: 3 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif</p>											

CH \$40.00 13393501

PATENT

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made by Kouhei YOSHIKAWA and Shinichiro YAMAMOTO (hereinafter referred to as Assignors), residing at c/o Osaka Works of Sumitomo Electric Industries, Ltd. 1-3, Shimaya 1-chome, Konohana-ku, Osaka-shi, Osaka, Japan and c/o Osaka Works of Sumitomo Electric Industries, Ltd. 1-3, Shimaya 1-chome, Konohana-ku, Osaka-shi, Osaka, Japan;

WHEREAS, Assignors have invented certain new and useful improvements in REACTOR:

the inventor's declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the U.S. Patent and Trademark Office;

said application having been filed in the U.S. Patent and Trademark Office on _____ and given Application No. _____;

said application having been filed under the Patent Cooperation Treaty on July 29, 2010 and given International Application No. PCT/JP2010/062844, the United States of America having been designated.

WHEREAS, SUMITOMO ELECTRIC INDUSTRIES, LTD., of 5-33, Kitahama 4-chome, Chuo-ku, Osaka-shi, Osaka, 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, Assignors have sold, assigned, transferred and set over, and by these presents do 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 which may be granted therefore

and thereon, and reissues, reexaminations and extensions of said Letters Patent, 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 Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant 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, Assignors are the sole and lawful owners 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 Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors 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, 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 Assignors hereby request 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 Assignors hereby grant 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:

VENABLE LLP

All practitioners at Customer Number 26694

Executed on: January 20, 2012
Date

Assignor:
Kouhei YOSHIKAWA
Assignor Name Kahei Yoshikawa
Signature

Witness:
Hirokazu KUGAI
Witness Name Hirokazu Kugai
Signature

c/o Osaka Works of Sumitomo Electric
Industries, Ltd. 1-3, Shimaya 1-chome,
Konohana-ku, Osaka-shi, Osaka, Japan
Witness Address

Executed on: January 20, 2012
Date

Assignor:
shinichiro YAMAMOTO
Assignor Name Shinichiro Yamamoto
Signature

Witness:
Hirokazu KUGAI
Witness Name Hirokazu Kugai
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