

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>Kentaro FUKUDA</td> <td>10/17/2012</td> </tr> <tr> <td>Sumito ISHIZU</td> <td>10/17/2012</td> </tr> <tr> <td>Noriaki KAWAGUCHI</td> <td>10/17/2012</td> </tr> <tr> <td>Toshihisa SUYAMA</td> <td>10/17/2012</td> </tr> <tr> <td>Akira YOSHIKAWA</td> <td>10/17/2012</td> </tr> <tr> <td>Takayuki YANAGIDA</td> <td>10/17/2012</td> </tr> <tr> <td>Yui YOKOTA</td> <td>10/17/2012</td> </tr> </tbody> </table> | | Name | Execution Date | Kentaro FUKUDA | 10/17/2012 | Sumito ISHIZU | 10/17/2012 | Noriaki KAWAGUCHI | 10/17/2012 | Toshihisa SUYAMA | 10/17/2012 | Akira YOSHIKAWA | 10/17/2012 | Takayuki YANAGIDA | 10/17/2012 | Yui YOKOTA | 10/17/2012 |
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| RECEIVING PARTY DATA | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>TOKUYAMA CORPORATION</td> </tr> <tr> <td>Street Address:</td> <td>1-1, Mikage-cho, Shunan-shi</td> </tr> <tr> <td>City:</td> <td>Yamaguchi</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>745-8648</td> </tr> </table> | | Name: | TOKUYAMA CORPORATION | Street Address: | 1-1, Mikage-cho, Shunan-shi | City: | Yamaguchi | State/Country: | JAPAN | Postal Code: | 745-8648 | | | | | | |
| Name: | TOKUYAMA CORPORATION | | | | | | | | | | | | | | | | |
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| Name: | TOHOKU UNIVERSITY | | | | | | | | | | | | | | | | |
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| PROPERTY NUMBERS Total: 1 | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13695088</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 13695088 | | | | | | | | | | | | |
| Property Type | Number | | | | | | | | | | | | | | | | |
| Application Number: | 13695088 | | | | | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | | | | | |
| Fax Number: | 7032058050 | | | | | | | | | | | | | | | | |
| <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> | | | | | | | | | | | | | | | | | |
| Phone: | (703)205-8000 | | | | | | | | | | | | | | | | |

OP \$40.00 13695088

Email: mailroom@bskb.com, Kleithon.G.Sayson@bskb.com
Correspondent Name: Birch, Stewart, Kolasch & Birch, LLP
Address Line 1: P.O. Box 747
Address Line 4: Falls Church, VIRGINIA 22040-0747

ATTORNEY DOCKET NUMBER:

1272-0178PUS1

NAME OF SUBMITTER:

Craig A. McRobbie

Total Attachments: 3

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BIRCH, STEWART, KOLASCH & BIRCH, LLP

UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

Application No. 13/695,088 Filed October 29, 2012

Insert Name(s)
of Inventor(s) Kentaro FUKUDA, Sumito ISHIZU, Noriaki KAWAGUCHI, Toshihisa SUYAMA,
Akira YOSHIKAWA, Takayuki YANAGIDA, and Yui YOKOTA

WHEREAS, (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in:

Insert Title
of Invention NEUTRON SCINTILLATOR AND NEUTRON DETECTOR

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application)

Insert Date
of Signing of
Application On October 17, 2012; and

Insert Name
of Assignee WHEREAS, TOKUYAMA CORPORATION and TOHOKU UNIVERSITY

Insert Address
of Assignee of 1-1, Mikage-cho, Shunan-shi, Yamaguchi 745-8648, Japan and
2-1-1 Katahira, Aoba-ku, Sendai-shi Miyagi 980-8577 Japan

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

CHECK BOX
IF APPROPRIATE **in any foreign countries.**

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

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

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

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

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the 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.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP 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 U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

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

Date October 17, 2012, Name of Inventor 
(signature) Kentaro FUKUDA

Date October 17, 2012, Name of Inventor Sumito Ishizu
(signature) Sumito ISHIZU

Date October 17, 2012, Name of Inventor Noriaki Kawaguchi
(signature) Noriaki KAWAGUCHI

Date October 17, 2012, Name of Inventor Toshihisa Suyama
(signature) Toshihisa SUYAMA

Date October 17, 2012, Name of Inventor Akira Yoshikawa
(signature) Akira YOSHIKAWA

Date October 17, 2012, Name of Inventor 柳田 健之
(signature) Takayuki YANAGIDA

Date October 17, 2012, Name of Inventor 横田 有為
(signature) Yui YOKOTA