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Atty. Docket No.: 12480-000145/US/DVA  
 Page 1 of 1

**RECORDATION FORM COVER SHEET**

**To the Honorable Commissioner of Patents and Trademarks:  
 Please record the attached original documents or copy thereof.**

<p>1. Name of conveying party(ies):  <b>Japan Science and Technology Agency</b>  <b>Taiyo Nippon Sanso Corporation</b>  <b>Nissin Electric Co., Ltd.</b>  <b>Otsuka Chemical Co., Ltd.</b>  <b>Public University Corporation, Osaka Prefecture University</b></p> <p>Additional name(s) of conveying party(ies) attached?  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>	<p>2. Name and address of receiving party(ies)                  Name: <b>Taiyo Nippon Sanso Corporation</b>                  Street Address: <b>3-26, Koyama 1-Chome, Shinagawa-ku</b>                  City: <b>Tokyo</b>                  Country: <b>JAPAN</b> Postal Code: <b>142-8558</b></p> <p>Additional name(s) &amp; address(es) attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>		
<p>3. Nature of conveyance:  <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement</p> <p>Execution Date: <b>04/18/2012; 05/18/2012; 05/21/2012; 05/25/2012 and 03/28/2012, respectively</b></p>	<p>4. Application number(s) or patent number(s):                  If this document is being filed together with a new application, the execution date of the application is:</p> <table style="width:100%;"> <tr> <td style="width:50%;">                     A. Patent Application No(s).  <b>12/805,528</b> </td> <td style="width:50%;">                     B. Patent No.(s).  </td> </tr> </table> <p style="text-align: center;">Additional numbers attached? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>	A. Patent Application No(s). <b>12/805,528</b>	B. Patent No.(s). 
A. Patent Application No(s). <b>12/805,528</b>	B. Patent No.(s). 		
<p>5. Name and address of party to whom correspondence concerning document should be mailed:                  Name: <b>HARNESS, DICKEY &amp; PIERCE, P.L.C.</b>                  Street Address: <b>P.O. BOX 8910</b>                  City: <b>RESTON</b> State: <b>VA</b> ZIP: <b>20195</b>                  Country: <b>USA</b></p>	<p>6. Total No. of applications/patents involved: <b>One (1)</b></p> <p>7. Total fee (37 C.F.R. § 3.41): <b>\$40.00</b>  <input type="checkbox"/> Enclosed  <input checked="" type="checkbox"/> <b>Authorized to be charged to deposit account</b></p> <p>8. Deposit account number: <b>08-0750</b></p>		
DO NOT USE THIS SPACE			
<p>9. Statement and signature.  <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i></p> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="width: 30%;"> <p><u>Crystal D. Wilson/61,730</u> Name of Person Signing/Reg. No.</p> </div> <div style="width: 30%; text-align: center;">  Signature                 </div> <div style="width: 30%; text-align: right;"> <p><u>June 20, 2012</u> Date</p> </div> </div>			
Total number of pages including cover sheet, attachments, and document: 8			

CH \$40.00 080750 12805528

**ASSIGNMENT**

**CORPORATE**

JAPAN SCIENCE AND TECHNOLOGY AGENCY, a Japanese corporation, having a principal place of business at 1-8, Honcho 4-Chome, Kawaguchi-city, Saitama, Japan 332-0012, TAIYO NIPPON SANSO CORPORATION, a Japanese corporation, having a principal place of business at 3-26, Koyama 1-Chome, Shinagawa-ku, Tokyo, Japan 142-8558, NISSIN ELECTRIC CO., LTD., a Japanese corporation, having a principal place of business at 47, Umezu-Takase-cho, Ukyo-ku, Kyoto-city, Kyoto, Japan 615-8686, OTSUKA CHEMICAL CO., LTD., a Japanese corporation, having a principal place of business at 2-27, Otedori 3-chome, Chuo-ku, Osaka-city, Osaka, Japan 540-0021, and PUBLIC UNIVERSITY CORPORATION, OSAKA PREFECTURE UNIVERSITY, a Japanese corporation, having a principal place of business at 1-1, Gakuen-cho, Naka-ku, Sakai-shi, Osaka, Japan, 599-8531 (hereafter the "Assignors"), are the owners by respective Assignment of United States Patent Application identified below (hereafter sometimes called the "Patent Application").

TAIYO NIPPON SANSO CORPORATION, a Japanese corporation, having a principal place of business at 3-26, Koyama 1-Chome, Shinagawa-ku, Tokyo, Japan 142-8558, (hereafter the "Assignee"), desires to acquire all of the rights of the Patent Application and all inventions described and claimed therein.

THEREFORE, in consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to it, Assignors hereby sell and assign to the Assignee the entire right, title and interest in and to the Patent Application identified below, and all inventions described and claimed therein, in any and all Letters Patent therefor, and in any and all reissues, extensions, renewals, reexaminations, divisions and continuations of such applications or Letters Patent to the full end of the term or terms for which such Letters Patent issue, such entire right, title and interest to be held and enjoyed by the above-named Assignee the same as they would have been held and enjoyed by the Assignors had this Assignment and sale not been made.

U.S. Serial No.	U.S. Filing Date	Title
12/805,528	August 4, 2010	Method and Apparatus For High-Efficiency Synthesis of Carbon Nanostructure, and Carbon Nanostructure

By its undersigned representative, the Assignors agree

a. to execute all papers necessary in connection with the Patent Application and any continuing, divisional, reissue, reexamination or corresponding application thereof and also to execute separate Assignment in connection with such application as the Assignee may deem necessary or expedient;

b. to execute all papers necessary in connection with any interference which may be declared concerning the Patent Application or any continuation, division, reissue or reexamination thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference; and

c. to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee on the Patent Application and on any continuation, division, reissue or reexamination of the Patent Application.

The Assignors hereby covenant that they have the full right to convey their interest herein assigned, and that they have not executed, and will not execute, any agreement in conflict therewith.

JAPAN SCIENCE AND TECHNOLOGY AGENCY, a Japanese corporation, certifies that it is an Owner of the right, title and interest in the Patent Application identified above by virtue of an assignment of the Patent Application identified above. This Assignment was filed on April 24, 2007 and recorded on April 24, 2007, at Reel 019230 Frame 0751.

TAIYO NIPPON SANZO CORPORATION, a Japanese corporation, certifies that it is an Owner of the right, title and interest in the Patent Application identified above by virtue of an assignment of the Patent Application identified above. This Assignment was filed on April 24, 2007 and recorded on April 24, 2007, at Reel 019230 Frame 0751.

NISSIN ELECTRIC CO., LTD., a Japanese corporation, certifies that it is an Owner of the right, title and interest in the Patent Application identified above by virtue of an assignment of the Patent Application identified above. This Assignment was filed on April 24, 2007 and recorded on April 24, 2007, at Reel 019230 Frame 0751.

OTSUKA CHEMICAL CO., LTD., a Japanese corporation, certifies that it is an Owner of the right, title and interest in the Patent Application identified above by virtue of an assignment of the Patent Application identified above. This Assignment was filed on April 24, 2007 and recorded on April 24, 2007, at Reel 019230 Frame 0751.

PUBLIC UNIVERSITY CORPORATION, OSAKA PREFECTURE UNIVERSITY, a Japanese corporation, certifies that it is an Owner of the right, title and interest in the Patent Application identified above by virtue of an assignment of the Patent Application identified above. This Assignment was filed on September 15, 2006 and recorded on September 15, 2006, at Reel 018295 Frame 0729.

The undersigned has reviewed the documents in the Patent Application identified above and, to the best of undersigned's knowledge and belief, title is in the Assignors identified above.

The undersigned is empowered to sign this certificate on behalf of the Assignor.

The undersigned hereby declares that all statements made herein of his/her own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

IN WITNESS WHEREOF, executed by the Assignor's undersigned representative on the date following the undersigned's name.

By: Michio Obara for Japan Science and Technology Agency  
Michio OBARA

Title: Senior Director (Technology Transfer)

Date: April 18, 2012

By: \_\_\_\_\_ for Taiyo Nippon Sanso Corporation  
Hiroshi Katsumata

Title: Corporate Executive Officer Technological Affairs

Date: \_\_\_\_\_

The undersigned has reviewed the documents in the Patent Application identified above and, to the best of undersigned's knowledge and belief, title is in the Assignors identified above.

The undersigned is empowered to sign this certificate on behalf of the Assignor.

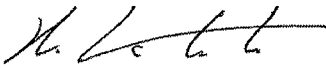
The undersigned hereby declares that all statements made herein of his/her own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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By: \_\_\_\_\_ for Japan Science and Technology Agency  
Michio OBARA

Title: Senior Director (Technology Transfer)

Date: \_\_\_\_\_

By:  \_\_\_\_\_ for Taiyo Nippon Sanso Corporation  
Hiroshi Katsumata

Title: Corporate Executive Officer Technological Affairs

Date: May 18, 2012

By: Hideaki OBATA for Nissin Electric Co., Ltd.

Title: President

Date: May. 21, 2012.

By: Takeharu HARASHIMA for Otsuka Chemical Co., Ltd.

Title: President and CEO

Date: \_\_\_\_\_

By: Taketoshi OKUNO for Public University Corporation, Osaka Prefecture University

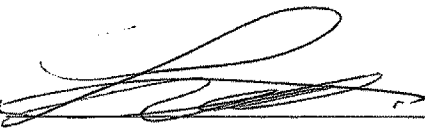
Title: Chairman of the Board of Trustees and CEO

Date: \_\_\_\_\_

By: \_\_\_\_\_ for Nissin Electric Co., Ltd.  
Hideaki OBATA

Title: President

Date: \_\_\_\_\_

By:  \_\_\_\_\_ for Otsuka Chemical Co., Ltd.  
Takeharu HARASHIMA

Title: President and CEO

Date: May 25, 2012

By: \_\_\_\_\_ for Public University Corporation, Osaka  
Taketoshi OKUNO Prefecture University

Title: Chairman of the Board of Trustees and CEO

Date: \_\_\_\_\_

By: \_\_\_\_\_ for Nissin Electric Co., Ltd.  
Hideaki OBATA

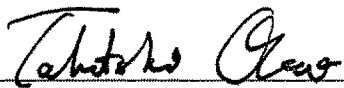
Title: President

Date: \_\_\_\_\_

By: \_\_\_\_\_ for Otsuka Chemical Co., Ltd.  
Takeharu HARASHIMA

Title: President and CEO

Date: \_\_\_\_\_

By:  \_\_\_\_\_ for Public University Corporation, Osaka  
Taketoshi OKUNO Prefecture University

Title: Chairman of the Board of Trustees and CEO

Date: March 28, 2012