### PATENT ASSIGNMENT

## Electronic Version v1.1 Stylesheet Version v1.1

**SUBMISSION TYPE: NEW ASSIGNMENT** NATURE OF CONVEYANCE: **ASSIGNMENT** 

#### **CONVEYING PARTY DATA**

| Name             | Execution Date |
|------------------|----------------|
| Martin JARVEKULG | 10/23/2009     |
| Valter REEDO     | 10/23/2009     |
| Uno MAEORG       | 10/23/2009     |
| Ilmar KINK       | 10/23/2009     |
| Ants LOHMUS      | 10/23/2009     |

#### **RECEIVING PARTY DATA**

| Name:           | University of Tartu |  |  |  |  |
|-----------------|---------------------|--|--|--|--|
| Street Address: | Ulikooli 18         |  |  |  |  |
| City:           | Tartu               |  |  |  |  |
| State/Country:  | ESTONIA             |  |  |  |  |
| Postal Code:    | 50090               |  |  |  |  |

| Name:           | stonian Nanotechnology Competence Centre |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|
| Street Address: | Riia 142                                 |  |  |  |  |  |
| City:           | Tartu                                    |  |  |  |  |  |
| State/Country:  | ESTONIA                                  |  |  |  |  |  |
| Postal Code:    | 51014                                    |  |  |  |  |  |

#### PROPERTY NUMBERS Total: 1

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 12663179 |

### CORRESPONDENCE DATA

501033895

Fax Number: (703)205-8050

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 703-205-8000 Email: abebg@bskb.com

Correspondent Name: Birch, Stewart, Kolasch & Birch, LLP

**PATENT** REEL: 023614 FRAME: 0614

| Address Line 1: P. O. Box 747 Address Line 4: Falls Church, V  | P. O. Box 747 Falls Church, VIRGINIA 22040-0747 |  |  |  |  |
|--|---|--|--|--|--|
| ATTORNEY DOCKET NUMBER:  | 5825-0110PUS1                                   |  |  |  |  |
| NAME OF SUBMITTER:   | Marc S. Weiner                                  |  |  |  |  |
| Total Attachments: 4 source=20091207Assignment#page1.tif source=20091207Assignment#page2.tif source=20091207Assignment#page3.tif source=20091207Assignment#page4.tif |   |  |  |  |  |

PATENT REEL: 023614 FRAME: 0615

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

## **ASSIGNMENT**

| Applica        | tion N | o. <u>12/663,179</u>   | Filed                                  | 12/4/2009                  |
|----------------|--------|--|--|----------------------------|
| Insert Name(s) |        | ***(Given Name FAMILY NAME (ALL CAPS))***  |  |                            |
| of Inventor(s) |        | WHEREAS, Martin JÄRVEKÜLG; Valter REEDO; Uno MÄEOR   | G; Ilmar K                             | INK;                       |
|                | Ant    | LÕHMUS   |  |                            |
|                | Till   | LOTHARDS   |  |                            |
|                |        |  |  |                            |
|                |        |  |  |                            |
|                |        |  |  |                            |
|                |        |  |  |                            |
|                | (her   | einafter designated as the undersigned) has (have) invented certain new and us   | seful improv                           | ements in                  |
| Insert Title   |        | od for preparing oxide material  |  |                            |
| of Invention   | 141041 | od for preparing oxide inderial  | <del> </del>                           |                            |
|                |        |  |  |                            |
|                | for    | which an application for Letters Patent of the United States of America ha   | as been exe                            | cuted by the undersioned   |
|                | (exc   | ept in the case of a provisional application).   |  | outed by the undereigned   |
| Insert Date    |        |  |  |                            |
| of Signing of  |        | 23.10.2009   |  |                            |
| Application    | on     | 23.10.2007   |  | ; and                      |
|                |        |  |  |                            |
| Insert Name    | W      | IEREAS, University of Tartu  | ······································ |                            |
| of Assignee    | _      |  |  |                            |
|                |        |  |  |                            |
|                | •      |  |  |                            |
| Insert Address | -      |  |  |                            |
| of Assignee    | of     | Ülikooli 18, 50090 Tartu, Estonia (EE)   |  |                            |
|                |        |  |  |                            |
|                |        |  |  |                            |
|                |        |  |  |                            |
|                | its h  | eirs, successors, legal representatives and assigns (hereinafter designated as t   | the Assignee                           | ) is desirous of acquiring |
|                | the    | entire right, title and interest in and to said invention and in and to any La   | etters Patent                          | t(s) that may be granted   |
| CHECK BOX      |        | ofor in the United States of America and any foreign countries.  |  |                            |
| IF APPROPRIATI |        | Total gar double.  |  |                            |
|                | NO     | V, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the  | undersigned                            | in hand paid, the receipt  |
|                | of v   | which is hereby acknowledged, and other good and valuable consideration  | n, the unde                            | rsigned has (have) sold,   |
|                | righ   | ened and transferred, and by these presents does sell, assign and transfer unto<br>to the said invention in the United States of America, its territories, dependent | said Assign                            | ossessions and the entire  |
|                | righ   | , title and interest in and to any and all Letters Patent(s) which may be gra  | nted therefo                           | r in the United States of  |
|                |        | rica, its territories, dependencies and possessions, and if the box above is tries;  | designated                             | , in any and all foreign   |
|                |        | <i>'</i>   |  |                            |
|                |        | to any and all divisions, reissues, continuations, conversions and extensions he the same may be granted.  | thereof for                            | the full term or terms for |

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 | 23.10.2009 | • | Name of Inventor | Mary         | Martin Järvekülg |
|------|------------|---|------------------|--------------|------------------|
| Date | 23.10.2009 | • | Name of Inventor | (signature)  | Valter Reedo     |
| Date | 23.10.2009 | , | Name of Inventor | (signature)  | Uno Mäeorg       |
| Date | 23.10.2009 | , | Name of Inventor | (signature)  | Ilmar Kink       |
| Date | 23.10.2009 | , | Name of Inventor | (signature)  | Ants Lõhmus      |
| Date |            | , | Name of Inventor | (signature)  |                  |
|      |            |   |                  | (signature ) | <del> </del>     |

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

## **ASSIGNMENT**

| Applicat  | tion No.   | 12/66   | 3,179  |   |  |   |   |   | Filed                            | 127                                   | 4/20                                      | 009   |
|---|--|---|--|---|--|---|---|---|----------------------------------|---------------------------------------|---|---|
| Insert Name(s)  |  | **  | **(Given N   | <br>lame FAM  | IILY NAM   | E (ALL  | CAPS))**  | **  |                                  |                                       | 1/20                                      |   |
| of Inventor(s)  |  | WHEREA  | S, Martin J  | ÄRVEKÜI   | LG; Valter   | REEDO;  | Uno MÄE   | ORG; I                                      | lmar K                           | INK;                                  |   |   |
|   | Ants L   | ÕHMUS -   |  |   |  | · · · · · · · · · · · · · · · · · · ·                 |   |   |                                  |                                       |   |   |
|   |  |   |  |   | <del></del>  |   |   |   |                                  |                                       |   | <del></del>   |
|   |  |   |  |   |  |   |   |   |                                  |                                       |   | ····  |
|   |  |   |  |   | 1  |   | <del></del>   |   |                                  |                                       |   | <del></del>   |
|   |  |   |  |   |  |   |   |   |                                  |                                       |   |   |
| Insert Title  |  | after designat  |  |   | nas (have) in  | vented cert   | ain new and   | d useful                                    | improve                          | ement                                 | s in                                      |   |
| of Invention  |  |   | g onter me   |   |  | ··  |   |   |                                  |                                       |   |   |
|   |  | ich an applic<br>in the case o  |  |   |  | ted States  | of America  | a has be                                    | æn exec                          | outed 1                               | by the u                                  | ndersigned  |
| Insert Date of Signing of   |  |   |  |   |  |   |   |   |                                  |                                       |   |   |
| Application   | on 23.   | .10.2009  | <del></del>  |   |  |   |   |   |                                  |                                       |   | ; and   |
|   |  |   |  |   |  |   |   |   |                                  |                                       |   |   |
| Insert Name WHEREAS,  of Assignee Estonian Nanotechnology Competence Centre |  |   |  |   |  |   |   |   |                                  |                                       |   | ····  |
| or Assignee   | Esto   | onian Nanot   | echnology (  | Competenc   | ce Centre  | <u> </u>  |   |   |                                  |                                       |   | <del></del>   |
|   |  |   |  |   | <del></del>  | ·   |   |   |                                  |                                       |   |   |
| Insert Address  |  |   |  | <del></del>   |  |   | ···   |   |                                  |                                       |   |   |
| of Assignee   | of <u>Rii</u>  | ia 142, 5101  | 4 Tartu, Es  | tonia (EE)  | <u> </u>   |   |   |   |                                  |                                       |   |   |
|   |  |   |  | <del></del>   |  |   |   |   |                                  |                                       |   |   |
|   |  |   |  |   |  | · · · · · · · · · · · · · · · · · · ·                 |   |   |                                  |                                       |   |   |
| CHECK BOX   | the entir  | s, successors,<br>ire right, title<br>r in the United<br>ny foreign cou                                     | and interest<br>d States of A                      | t in and to   | nd assigns (h<br>said invent   | ereinafter<br>ion and in                              | designated<br>and to any  | as the A<br>y Letter                        | .ssignee<br>s Patent             | ) is de<br>(s) tha                    | sirous of<br>at may b                     | acquiring e granted                                 |
| CHECK BOX<br>IF APPROPRIATI   | •  | ., 1010.6.1 000   | A14100.  |   |  |   |   |   |                                  |                                       |   |   |
|   | NOW, 7<br>of whice<br>assigned<br>right to<br>right, tit | THEREFORI<br>ch is hereby<br>d and transfer<br>the said inve-<br>tle and intere-<br>a, its territor-<br>es; | acknowledgered, and by ention in the est in and to | ged, and of<br>these present<br>United State<br>any and all | her good and the self and the s | nd valuable, assign an<br>ca, its terri<br>ent(s) whi | e considered transfer ut tories, dependent to the contract of | ation, the said anto said andencies granted | he under Assign es and potential | rsigne<br>ee the<br>ossess<br>r in th | d has (land) full and ions and the United | nave) sold,<br>exclusive<br>the entire<br>States of |
|   |  | any and all d<br>he same may  |  | sues, contir  | nuations, co   | versions a  | and extension   | ons ther                                    | eof for                          | the fu                                | ll term o                                 | r terms for   |

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 | 23.10.2009 | . '        | Name of Inventor | (signature)      | Martin Järvekülg |
|------|------------|------------|------------------|------------------|------------------|
| Date | 23.10.2009 | . •        | Name of Inventor | Verdo (organiza) | Valter Reedo     |
| Date | 23.10.2009 | . ,        | Name of Inventor | (signature)      | Uno Mäeorg       |
| Date | 23.10.2009 | , <b>,</b> | Name of Inventor | (signature)      | Ilmar Kink       |
| Date | 23.10.2009 | . •        | Name of Inventor | (signature)      | Ants Lõhmus      |
| Date |            | . •        | Name of Inventor | (signature)      |                  |
|      |            |            |                  | (signature)      |                  |

Page 2 of 2