

**PATENT ASSIGNMENT**

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| SUBMISSION TYPE:  | NEW ASSIGNMENT                       |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
|---|--------------------------------------|---------------|----------------|---------------------|------------|------------|------------|-------------|------------|-----------------|------------|-------------------|------------|---------------|------------|--------------|------------|
| NATURE OF CONVEYANCE:   | ASSIGNMENT                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| <b>CONVEYING PARTY DATA</b>   |                                      |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Matti VALKIAINEN</td> <td>03/25/2009</td> </tr> <tr> <td>Harry BOER</td> <td>03/25/2009</td> </tr> <tr> <td>Anu KOIVULA</td> <td>03/25/2009</td> </tr> <tr> <td>Maria SMOLANDER</td> <td>03/25/2009</td> </tr> <tr> <td>Pia QVINTUS-LEINO</td> <td>05/05/2009</td> </tr> <tr> <td>Kirsi IMMONEN</td> <td>05/12/2009</td> </tr> <tr> <td>Liisa VIKARI</td> <td>05/14/2009</td> </tr> </tbody> </table> |                                      | Name          | Execution Date | Matti VALKIAINEN    | 03/25/2009 | Harry BOER | 03/25/2009 | Anu KOIVULA | 03/25/2009 | Maria SMOLANDER | 03/25/2009 | Pia QVINTUS-LEINO | 05/05/2009 | Kirsi IMMONEN | 05/12/2009 | Liisa VIKARI | 05/14/2009 |
| Name  | Execution Date                       |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Matti VALKIAINEN  | 03/25/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Harry BOER  | 03/25/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Anu KOIVULA   | 03/25/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Maria SMOLANDER   | 03/25/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Pia QVINTUS-LEINO   | 05/05/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Kirsi IMMONEN   | 05/12/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Liisa VIKARI  | 05/14/2009                           |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| <b>RECEIVING PARTY DATA</b>   |                                      |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
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| <b>PROPERTY NUMBERS Total: 1</b>  |                                      |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12305351</td> </tr> </tbody> </table>   |                                      | Property Type | Number         | Application Number: | 12305351   |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Property Type   | Number                               |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| Application Number:   | 12305351                             |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
| <b>CORRESPONDENCE DATA</b>  |                                      |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |
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| ATTORNEY DOCKET NUMBER:   | 0365-0764PUS1                        |               |                |                     |            |            |            |             |            |                 |            |                   |            |               |            |              |            |

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**500862234**

**PATENT  
 REEL: 022696 FRAME: 0708**

NAME OF SUBMITTER:

Leonard R. Svensson

Total Attachments: 5

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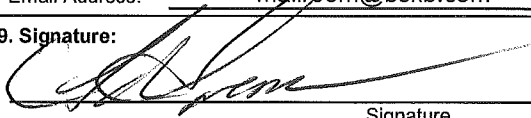
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### RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

|  |  |
|--|--|
| <b>1. Name of conveying party(ies):</b><br>Matti VALKIAINEN (03/25/2009), Harry BOER (03/25/2009), Anu KOIVULA (03/25/2009), Maria SMOLANDER (03/25/2009),<br><br>Additional name(s) of conveying party(ies) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   | <b>2. Name and address of receiving party(ies)</b><br>Name: <u>VALTION TEKNILLINEN TUTKIMUSKESKUS</u><br>Internal Address: _____<br>Street Address: _____<br><br>Vuorimiehentie 3<br><br>City: <u>Espoo</u><br>State: _____<br>Country: <u>Finland</u> Zip: <u>FI-02150</u><br>Additional name(s) & address(es) attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
| <b>3. Nature of conveyance/Execution Date(s):</b><br>Execution Date(s): <u>in parentheses after inventor name</u><br><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name<br><input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement<br><input type="checkbox"/> Government Interest Assignment<br><input type="checkbox"/> Executive Order 9424, Confirmatory License<br><input type="checkbox"/> Other _____ | <b>4. Application or patent number(s):</b> <input type="checkbox"/> This document is being filed together with a new application.<br>A. Patent Application No.(s)<br><u>12/305,351</u><br><br>B. Patent No.(s)<br><br>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |
| <b>5. Name and address to whom correspondence concerning document should be mailed:</b><br>Name: <u>Leonard R. Svensson</u><br><u>BIRCH, STEWART, KOLASCH &amp; BIRCH, LLP</u><br><br>Internal Address: <u>Atty. Dkt.: 0365-0764PUS1</u><br>Street Address: <u>12770 High Bluff Drive</u><br><u>Suite 260</u><br><br>City: <u>San Diego</u><br>State: <u>CA</u> Zip: <u>92130</u><br>Phone Number: <u>(858) 792-8855</u><br>Fax Number: <u>(858) 792-3785</u><br>Email Address: <u>mailroom@bskb.com</u>               | <b>6. Total number of applications and patents involved:</b> <span style="border: 1px solid black; padding: 2px 10px;">1</span><br><br><b>7. Total fee (37 CFR 1.21(h) &amp; 3.41)</b> \$ <u>40.00</u><br><input type="checkbox"/> Authorized to be charged by credit card<br><input checked="" type="checkbox"/> Authorized to be charged to deposit account<br><input type="checkbox"/> Enclosed<br><input type="checkbox"/> None required (government interest not affecting title) |
| <b>9. Signature:</b><br><br>_____<br>Signature<br><u>Leonard R. Svensson - 30,330</u><br>Name of Person Signing   | <b>8. Payment Information</b><br>a. Credit Card Last 4 Numbers _____<br>Expiration Date _____<br>b. Deposit Account Number <u>02-2448</u><br>Authorized User Name <u>Leonard R. Svensson</u><br><br>May 18, 2009<br>Date<br>Total number of pages including cover sheet, attachments, and documents: <span style="border: 1px solid black; padding: 2px 10px;">5</span>  |

RECORDATION FORM COVER SHEET  
(continued)

Additional Conveying Party(ies)/Execution Date(s) (1. Continued):

Pia QVINTUS-LEINO (05/05/2009), Kirsi IMMONEN (05/12/2009), and Liisa VIIKARI (05/14/2009)

Additional Assignees (2. Continued):

Assignee Name: \_\_\_\_\_

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Street Address:

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Assignee Name: \_\_\_\_\_

Internal Address:

Street Address:

City: \_\_\_\_\_ State: \_\_\_\_\_ Country: \_\_\_\_\_ Zip: \_\_\_\_\_

Additional Applications and/or Patents (4. Continued):

Additional Patent Application Numbers  
4A. Continued:

Additional Patent Numbers  
4B. Continued:

Additional numbers attached?

Yes  No

**BIRCH, STEWART, KOLASCH & BIRCH, LLP**

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

**ASSIGNMENT**

Application No. 12/305,351 Filed December 17, 2008

Insert Name(s) of Inventor(s) **\*\*\*(Given Name FAMILY NAME (ALL CAPS))\*\*\***

WHEREAS, Matti VALKIAINEN; Harry BOER; Anu KOIVULA; Maria SMOLANDER; Pia QVINTUS-LEINO; Kirsi IMMONEN; and Liisa VIIKARI (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in:

Insert Title of Invention **NOVEL THIN FILM STRUCTURES**

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 \_\_\_\_\_; and

Insert Name of Assignee **WHEREAS, VALTION TEKNILLINEN TUTKIMUSKESKUS**  
Insert Address of Assignee of Vuorimiehentie 3, FI-02150 Espoo, FINLAND

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  in any foreign countries.

CHECK BOX IF APPROPRIATE

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, 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.

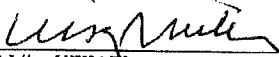
The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

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 <u>25th March 2009</u> | Name of Inventor <u>Matti Valkiamäki</u><br>(signature) Matti VALKIAINEN   |
| Date <u>25th March 2009</u> | Name of Inventor <u>Harry Boer</u><br>(signature) Harry BOER               |
| Date <u>25th March 2009</u> | Name of Inventor <u>Anu Rovula</u><br>(signature) Anu ROVULA               |
| Date <u>25th March 2009</u> | Name of Inventor <u>Maria Smolander</u><br>(signature) Maria SMOLANDER     |
| Date <u>5th May 2009</u>    | Name of Inventor <u>Pia Qvintus-Leino</u><br>(signature) Pia QVINTUS-LEINO |
| Date <u>12th May 2009</u>   | Name of Inventor <u>Kirsi Immonen</u><br>(signature) Kirsi IMMONEN         |

Attorney Docket No. 0365-0764PUS1

Date May 14th 2009 Name of Inventor   
(signature) Liisa VIHKARI