**PATENT ASSIGNMENT**

Electronic Version v1.1  
Stylesheet Version v1.1

<table>
<thead>
<tr>
<th>SUBMISSION TYPE:</th>
<th>NEW ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATURE OF CONVEYANCE:</td>
<td>ASSIGNMENT</td>
</tr>
</tbody>
</table>

**CONVEYING PARTY DATA**

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph J. Talghader</td>
<td>03/28/2011</td>
</tr>
<tr>
<td>Ryan P. Shea</td>
<td>03/28/2011</td>
</tr>
<tr>
<td>Anand S. Gawarikar</td>
<td>05/10/2011</td>
</tr>
</tbody>
</table>

**RECEIVING PARTY DATA**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Kagan Binder, PLLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address:</td>
<td>221 Main Street North</td>
</tr>
<tr>
<td>Internal Address:</td>
<td>Suite 200</td>
</tr>
<tr>
<td>City:</td>
<td>Stillwater</td>
</tr>
<tr>
<td>State/Country:</td>
<td>MINNESOTA</td>
</tr>
<tr>
<td>Postal Code:</td>
<td>55082</td>
</tr>
</tbody>
</table>

**PROPERTY NUMBERS Total: 1**

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Number</td>
<td>12996704</td>
</tr>
</tbody>
</table>

**CORRESPONDENCE DATA**

Fax Number: (651)351-2954  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*

Phone: 6513512900  
Email: kmcmahon@kaganbinder.com  
Correspondent Name: Kagan Binder, PLLC  
Address Line 1: 221 Main Street North  
Address Line 2: Suite 200  
Address Line 4: Stillwater, MINNESOTA 55082

**ATTORNEY DOCKET NUMBER:** UMN0006/US  
**NAME OF SUBMITTER:** Kevin Hubbard

Total Attachments: 3  
source=UMN0006US_Assignment#page1.tif  
source=UMN0006US_Assignment#page2.tif  
source=UMN0006US_Assignment#page3.tif
ASSIGNMENT

WHEREAS, we, Joseph J. Talghader, of 200 Union Street, Minneapolis, Minnesota 55455; Ryan P. Shea, of 1241 Osage Street, St. Paul, Minnesota 55117; and Anand S. Gawarikar, of 425 13th Avenue SE, Minneapolis, Minnesota 55414, have invented certain new and useful improvements in DETECTION BEYOND THE STANDARD RADIATION NOISE LIMIT USING SPECTRALLY SELECTIVE ABSORPTION, which application is identified in the United States Patent Office by Serial No. 12/996,704, filed November 30, 2010.

WHEREAS, Regents of the University of Minnesota, having an address of 1000 Westgate Drive, Suite 160, St. Paul, Minnesota 55114, is desirous of acquiring the entire right, title and interest in and to said invention, said application and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Regents of the University of Minnesota, Inc., its successors and assigns, the entire right, title and interest in and to said invention, said application and the Letters Patent, both foreign and domestic, including all non-provisional, continuation, divisional, reissue, and reexamination applications, that may or shall issue, including all rights under the Paris Convention, European Convention, Patent Cooperation Treaty, and other international treaties and conventions, and we do hereby authorize and request the Director of the United States Patent and Trademark Office to issue said Letters Patent to the above-mentioned assignee in accordance herewith.

We further authorize said assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name, if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and/or otherwise take advantage of the provisions of the Paris Convention, European Convention, Patent Cooperation Treaty, and other international treaties and conventions.

We do hereby covenant and agree with the said assignee, its successors and assigns, that we will not execute any writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will, at any time upon request, without further or additional consideration, but at the expense of said assignee, its successors and assigns, execute such additional writings and do such additional acts as said assignee, its successors and assigns, may deem necessary or desirable to perfect the assignee’s enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, non-provisional, divisional, continuation, reissued, or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights, occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

In Witness Whereof, we have hereunto set our hands on the date(s) written below.

[Signatures]

Joseph J. Talghader Date
Anand S. Gawarikar Date
Ryan P. Shea Date

#65311
ASSIGNMENT

WHEREAS, we, Joseph J. Talghader, of 200 Union Street, Minneapolis, Minnesota 55455; Ryan P. Shea, of 1241 Osage Street, St. Paul, Minnesota 55117; and Anand S. Gawarikar, of 425 13th Avenue SE, Minneapolis, Minnesota 55414, have invented certain new and useful improvements in DETECTION BEYOND THE STANDARD RADIATION NOISE LIMIT USING SPECTRALLY SELECTIVE ABSORPTION, which application is identified in the United States Patent Office by Serial No. 12/996,704, filed November 30, 2010.

WHEREAS, Regents of the University of Minnesota, having an address of 1000 Westgate Drive, Suite 160, St. Paul, Minnesota 55114, is desirous of acquiring the entire right, title and interest in and to said invention, said application and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Regents of the University of Minnesota, Inc., its successors and assigns, the entire right, title and interest in and to said invention, said application and the Letters Patent, both foreign and domestic, including all non-provisional, continuation, divisional, reissue, and reexamination applications, that may or shall issue, including all rights under the Paris Convention, European Convention, Patent Cooperation Treaty, and other international treaties and conventions, and we do hereby authorize and request the Director of the United States Patent and Trademark Office to issue said Letters Patent to the above-mentioned assignee in accordance herewith.

We further authorize said assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name, if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and/or otherwise take advantage of the provisions of the Paris Convention, European Convention, Patent Cooperation Treaty, and other international treaties and conventions.

We do hereby covenant and agree with the said assignee, its successors and assigns, that we will not execute any writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will, at any time upon request, without further or additional consideration, but at the expense of said assignee, its successors and assigns, execute such additional writings and do such additional acts as said assignee, its successors and assigns, may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, non-provisional, divisional, continuation, reissued, or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights, occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

In Witness Whereof, we have hereunto set our hands on the date(s) written below.

Joseph J. Talghader    Date
Ryan P. Shea          3/28/11
Anand S. Gawarikar    Date

#65311
ASSIGNMENT

WHEREAS, we, Joseph J. Talghader, of 200 Union Street, Minneapolis, Minnesota 55455; Ryan P. Shea, of 1241 Osage Street, St. Paul, Minnesota 55117; and Anand S. Gawankar, of 425 13th Avenue SE, Minneapolis, Minnesota 55414, have invented certain new and useful improvements in DETECTION BEYOND THE STANDARD RADIATION NOISE LIMIT USING SPECTRALLY SELECTIVE ABSORPTION, which application is identified in the United States Patent Office by Serial No. 12/996,704, filed November 30, 2010.

WHEREAS, Regents of the University of Minnesota, having an address of 1000 Westgate Drive, Suite 160, St. Paul, Minnesota 55114, is desirous of acquiring the entire right, title and interest in and to said invention, said application and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Regents of the University of Minnesota, Inc., its successors and assigns, the entire right, title and interest in and to said invention, said application and the Letters Patent, both foreign and domestic, including all non-provisional, continuation, divisional, reissue, and reexamination applications, that may or shall issue, including all rights under the Paris Convention, European Convention, Patent Cooperation Treaty, and other international treaties and conventions, and we do hereby authorize and request the Director of the United States Patent and Trademark Office to issue said Letters Patent to the above-mentioned assignee in accordance herewith.

We further authorize said assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name, if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and/or otherwise take advantage of the provisions of the Paris Convention, European Convention, Patent Cooperation Treaty, and other international treaties and conventions.

We do hereby covenant and agree with the said assignee, its successors and assigns, that we will not execute any writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will, at any time upon request, without further or additional consideration, but at the expense of said assignee, its successors and assigns, execute such additional writings and do such additional acts as said assignee, its successors and assigns, may deem necessary or desirable to perfect the assignee’s enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, non-provisional, divisional, continuation, reissued, or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights, occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

In Witness Whereof, we have hereunto set our hands on the date(s) written below.

Joseph J. Talghader  Date  Anand S. Gawankar  Date
Ryan P. Shea  Date

065311