

PATENT ASSIGNMENT

Electronic Version v1.1
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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>Rana Biswas</td> <td>02/09/2012</td> </tr> <tr> <td>Kristen Constant</td> <td>02/09/2012</td> </tr> <tr> <td>Kai-Ming Ho</td> <td>02/09/2012</td> </tr> <tr> <td>Jae-Hwang Lee</td> <td>02/14/2012</td> </tr> </tbody> </table>		Name	Execution Date	Rana Biswas	02/09/2012	Kristen Constant	02/09/2012	Kai-Ming Ho	02/09/2012	Jae-Hwang Lee	02/14/2012
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Iowa State University Research Foundation, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>310 Lab of Mechanics</td> </tr> <tr> <td>City:</td> <td>Ames</td> </tr> <tr> <td>State/Country:</td> <td>IOWA</td> </tr> <tr> <td>Postal Code:</td> <td>50011-2131</td> </tr> </table>		Name:	Iowa State University Research Foundation, Inc.	Street Address:	310 Lab of Mechanics	City:	Ames	State/Country:	IOWA	Postal Code:	50011-2131
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CORRESPONDENCE DATA											
<p>Fax Number: (815)654-5770</p> <p>Phone: 8156335300</p> <p>Email: rockmail@reinhardtllaw.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Reinhart Boerner Van Deuren P.C.</p> <p>Address Line 1: 2215 Perrygreen Way</p> <p>Address Line 4: Rockford, ILLINOIS 61107</p>											
ATTORNEY DOCKET NUMBER:	504008										
NAME OF SUBMITTER:	Jeffery J. Makeever										
Total Attachments: 7											

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ASSIGNMENT

For good and valuable considerations, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to **IOWA STATE UNIVERSITY RESEARCH FOUNDATION, INC.**, an Iowa corporation, having an address of 310 Lab of Mechanics, Ames, Iowa 50011-2131, its successors and assigns the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, Serial No. 12/227,594 filed in the United States Patent and Trademark Office on the ____ day of November 21, 2008, entitled **Manufacturing Method of Photonic Crystal**, and in said application and any and all other applications for United States Letters Patent, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent, applications, and in any reissue or extension thereof.

The undersigned hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Iowa State University Research Foundation, Inc.

For said considerations the undersigned hereby agree, upon the request, and at the expense of said assignee, its successors and assigns, to execute any and all divisional continuation and substitute applications for said invention or improvements, and any necessary oath or affidavit relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and for the said considerations the undersigned further agree upon the request of said assignee, its successors or assigns, in the event of any application or Letters Patent assigned herein becoming involved in interference, to cooperate to the best of the ability of the undersigned with said assignee, its successors or assigns in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon request, any and all affirmative acts to obtain said Letters Patent of the United States and vest all rights therein hereby conveying in the said assignee, its successors and assigns whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns to the full end of the

term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

And for said considerations the undersigned hereby assign to said assignee, its successors and assigns, the entire right, title and interest in said invention or improvements for any and all foreign countries and agree upon the request of assignee, its successors and assigns to execute any and all documents that undersigned shall be requested to execute in connection with any and all applications for foreign Letters Patent therefor, including the prosecution thereof, and to execute any and all documents necessary to vest title in said foreign applications and patents in assignee.

Rana Biswas

Rana Biswas

STATE OF IOWA)
) ss.
COUNTY OF Story)

On this 9th day of February, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared Rana Biswas, to me personally known to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act for the uses and purposes therein expressed.

Witness my hand and seal the day and year last above given.

Gloria J. Oberender
NOTARY PUBLIC of IOWA
Comm. #170379
Comm. Exp. July 21, 2014

Gloria J. Oberender
Notary Public

Commission Expires 7-21-14

Kristen Constant
Kristen Constant

STATE OF IOWA)
) ss.
COUNTY OF Story)

On this 9th day of February, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared Kristen Constant, to me personally known to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act for the uses and purposes therein expressed.

Witness my hand and seal the day and year last above given.

Gloria J. Oberender
NOTARY PUBLIC of IOWA
Comm. #170379
Comm. Exp. July 21, 2014

Gloria Oberender
Notary Public

Commission Expires 7-21-14

Kai-Ming Ho
Kai-Ming Ho

STATE OF IOWA)
) ss.
COUNTY OF Story)

On this 9th day of February, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared Kai-Ming Ho, to me personally known to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act for the uses and purposes therein expressed.

Witness my hand and seal the day and year last above given.

Gloria J. Oberender
NOTARY PUBLIC of IOWA
Comm. #170379
Comm. Exp. July 21, 2014

Gloria Oberender
Notary Public

Commission Expires 7-21-14

Jae-Hwang Lee

STATE OF IOWA)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared Jae-Hwang Lee, to me personally known to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act for the uses and purposes therein expressed.

Witness my hand and seal the day and year last above given.

Notary Public

Commission Expires _____

ASSIGNMENT

For good and valuable considerations, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to **IOWA STATE UNIVERSITY RESEARCH FOUNDATION, INC.**, an Iowa corporation, having an address of 310 Lab of Mechanics, Ames, Iowa 50011-2131, its successors and assigns the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, Serial No. 12/227,594 filed in the United States Patent and Trademark Office on the day of November 21, 2008, entitled **Manufacturing Method of Photonic Crystal**, and in said application and any and all other applications for United States Letters Patent, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent, applications, and in any reissue or extension thereof.

The undersigned hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Iowa State University Research Foundation, Inc.

For said considerations the undersigned hereby agree, upon the request, and at the expense of said assignee, its successors and assigns, to execute any and all divisional continuation and substitute applications for said invention or improvements, and any necessary oath or affidavit relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and for the said considerations the undersigned further agree upon the request of said assignee, its successors or assigns, in the event of any application or Letters Patent assigned herein becoming involved in interference, to cooperate to the best of the ability of the undersigned with said assignee, its successors or assigns in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon request, any and all affirmative acts to obtain said Letters Patent of the United States and vest all rights therein hereby conveying in the said assignee, its successors and assigns whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns to the full end of the term for

which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

And for said considerations the undersigned hereby assign to said assignee, its successors and assigns, the entire right, title and interest in said invention or improvements for any and all foreign countries and agree upon the request of assignee, its successors and assigns to execute any and all documents that undersigned shall be requested to execute in connection with any and all applications for foreign Letters Patent therefor, including the prosecution thereof, and to execute any and all documents necessary to vest title in said foreign applications and patents in assignee.

Rana Biswas

STATE OF IOWA)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared Rana Biswas, to me personally known to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act for the uses and purposes therein expressed.

Witness my hand and seal the day and year last above given.

Notary Public

Commission Expires _____

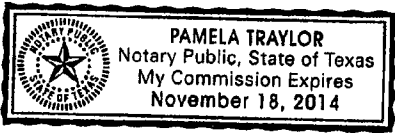
[Handwritten signature]

Texas
STATE OF ~~IOWA~~)

COUNTY OF Harris) ss.

On this 14th day of February, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared Jae-Hwang Lee, to me personally known to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act for the uses and purposes therein expressed.

Witness my hand and seal the day and year last above given.




Notary Public

Commission Expires 11-18-14