

## PATENT ASSIGNMENT

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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>Pradeep THALAPPIL</td> <td>11/30/2010</td> </tr> <tr> <td>Udayabhaskararao THUMU</td> <td>11/30/2010</td> </tr> </tbody> </table>		Name	Execution Date	Pradeep THALAPPIL	11/30/2010	Udayabhaskararao THUMU	11/30/2010				
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<table border="1"> <tr> <td>Name:</td> <td>Indian Institute of Technology Madras</td> </tr> <tr> <td>Street Address:</td> <td>Tamilnadu</td> </tr> <tr> <td>City:</td> <td>Chennai</td> </tr> <tr> <td>State/Country:</td> <td>INDIA</td> </tr> <tr> <td>Postal Code:</td> <td>600036</td> </tr> </table>		Name:	Indian Institute of Technology Madras	Street Address:	Tamilnadu	City:	Chennai	State/Country:	INDIA	Postal Code:	600036
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PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13807971</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13807971						
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CORRESPONDENCE DATA											
<p>Fax Number: 4122810717  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 412-454-5000        Email: docketingpgh@pepperlaw.com        Correspondent Name: Pepper Hamilton LLP        Address Line 1: Suite 5000, 50th Floor        Address Line 4: Pittsburgh, PENNSYLVANIA 15219-2507</p>											
ATTORNEY DOCKET NUMBER:	138248.01701										
NAME OF SUBMITTER:	Stephen H. Montgomery, Reg. No. 62968										
<p>Total Attachments: 4        source=Executed_Assignment#page1.tif        source=Executed_Assignment#page2.tif        source=Executed_Assignment#page3.tif        source=Executed_Assignment#page4.tif</p>											

OP \$40.00 13807971

PATENT

ASSIGNMENT OF PATENT RIGHTS

For valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Pradeep THALAPPIL, C-4, IIT Campus, Chennai 600036, Tamilnadu, India and Udayabhaskararao THUMU, C/O T.Gandhi, Bhimadolu, West Godavari Dist., 534425, Andhra Pradesh, India

(collectively,] "Assignor"),

effective as of November 30, 2010 hereby sells, assigns, transfers, and conveys unto Indian Institute Of Technology Madras, Chennai 600036, Tamilnadu, India ("Assignee"), all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "Rights"):

1. the inventions disclosed in the solution report/invention disclosure titled SYNTHESIS OF QUANTUM CLUSTERS IN MOLECULAR CONFINEMENT- RAPID AND SCALABLE METHOD and all inventions claimed and/or described in the Application (collectively, the "Invention");
2. the patent applications listed in the table below (the "Application");

Patent Application No.	Country	Filing Date	Title
13/807,971	US	January 2, 2013	Methods Of Preparing Metal Quantum Clusters In Molecular Confinement
PCT/IB2011/003105	IB	December 22, 2011	
3692/CHE/2011	IN	October 28, 2011	

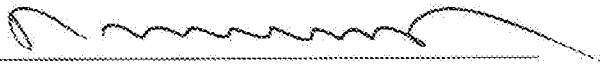
3. all rights with respect to the Invention, including all UNITED STATES patents or other governmental grants or issuances that may be granted with respect to the Invention or from any direct or indirect divisionals, continuations, continuations-in-part, or other patent applications claiming priority rights from the Application ("Potential Patents");
4. all reissues, reexaminations, extensions, or registrations of the Potential Patents;
5. all non-United States patents, patent applications, and counterparts relating to any or all of the Invention, the Application, and the Potential Patents, including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances ("Foreign Rights"), and including the right to file foreign applications directly in the name of Assignee, its successors and assigns;
6. all rights to claim priority rights deriving from the Application;
7. all causes of action and remedies related to any or all of the Application, the Invention, the Potential Patents, and the Foreign Rights (including, without limitation, the right to sue for past, present, or future infringement, misappropriation or violation of rights related to any of the foregoing and the right to collect royalties and other payments under or on account of any of the foregoing); and
8. any and all other rights and interests arising out of, in connection with, or in relation to the Application, the Invention, Potential Patents, and the Foreign Rights.

Assignor will not sign any document or do any act conflicting with this Assignment, and, without further compensation, will sign all documents and do such additional acts as Assignee, its successors, legal representatives, and assigns deem necessary or desirable to perfect enjoyment of the Rights, conduct proceedings regarding the Rights (including any litigation or interference proceedings), or perfect or defend title to the Rights. Assignor requests the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models, or other governmental grants or issuances that may be granted upon any of the Rights in the name of the Assignee, as the assignee to the entire interest therein.

Assignor hereby authorizes and requests authorized representative to insert on this Assignment the filing date and Patent Application Numbers in the table above when known.

The terms and conditions of this Assignment will inure to the benefit of Assignee, its successors, legal representatives, and assigns and will be binding upon Assignor, their successors, legal representatives and assigns.

[Signature Page(s) to Follow]

By: 


Print name: Pradeep THALAPPIL

**ATTESTATION**


The undersigned witnessed the signature of Pradeep THALAPPIL to this document and makes the following statements:

1. I am over the age of 18 and competent to testify as to the facts in this Attestation block if called upon to do so.
2. Pradeep THALAPPIL is personally known to me (or proved to me on the basis of satisfactory evidence) and appeared before me on 19-10-2011 to execute this document.
3. Pradeep THALAPPIL subscribed to this document.

I declare under penalty of perjury under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that the foregoing is true and correct.

By: 

Print name: Name of 1 Attestor Dr. VASUDEVA BHAT

By: 

Print name: Name of 2 Attestor Sajanal PANIKKUNJALAPPIL RAJINDRANATHAN

By: T. Udayabhaskararao

Print name: Udayabhaskararao THUMU

**ATTESTATION**

The undersigned witnessed the signature of Udayabhaskararao THUMU to this document and makes the following statements:

1. I am over the age of 18 and competent to testify as to the facts in this Attestation block if called upon to do so.

2. Udayabhaskararao THUMU is personally known to me (or proved to me on the basis of satisfactory evidence) and appeared before me on 19.10.2011, to execute this document.

3. Udayabhaskararao THUMU subscribed to this document.

I declare under penalty of perjury under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that the foregoing is true and correct.

By: [Signature]

Print name: [Name of 1st Attestor] Dr. VASUDEVA BHAF

By: [Signature]

Print name: [Name of 2nd Attestor] S. JAYALAKSHMI RAVINDRANATHAN