

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>Jonathan E. Spanier</td> <td>11/20/2012</td> </tr> <tr> <td>Guannan Chen</td> <td>11/09/2012</td> </tr> <tr> <td>Eric M. Gallo</td> <td>11/07/2012</td> </tr> <tr> <td>Baris Taskin</td> <td>10/11/2012</td> </tr> </tbody> </table>		Name	Execution Date	Jonathan E. Spanier	11/20/2012	Guannan Chen	11/09/2012	Eric M. Gallo	11/07/2012	Baris Taskin	10/11/2012
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Drexel University</td> </tr> <tr> <td>Street Address:</td> <td>3141 Chestnut Street</td> </tr> <tr> <td>City:</td> <td>Philadelphia</td> </tr> <tr> <td>State/Country:</td> <td>PENNSYLVANIA</td> </tr> <tr> <td>Postal Code:</td> <td>19104</td> </tr> </table>		Name:	Drexel University	Street Address:	3141 Chestnut Street	City:	Philadelphia	State/Country:	PENNSYLVANIA	Postal Code:	19104
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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>13626934</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13626934						
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CORRESPONDENCE DATA											
<p>Fax Number: 2155683439 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 215-568-3100 Email: assignments@woodcock.com</p> <p>Correspondent Name: Woodcock Washburn, LLP Address Line 1: 2929 Arch Street Address Line 2: Cira Centre, 12th Floor Address Line 4: Philadelphia, PENNSYLVANIA 19104-2891</p>											
ATTORNEY DOCKET NUMBER:	DXU-0451 / 11-1339D										
NAME OF SUBMITTER:	Faith A. Poore										
Total Attachments: 8											

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ASSIGNMENT

WHEREAS, I, **Jonathan E. Spanier**, a citizen of **United States**, residing at **43 Llanberris Road, Bala Cynwyd, Pennsylvania 19004**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **DXU-0451 / 11-1339D** ("the invention"), assigned application number **13/626,934** filed **September 26, 2012**, which is entitled **TUNABLE HOT-ELECTRON TRANSFER WITHIN A NANOSTRUCTURE** ("the subject application"), and which claims priority to patent application number **61/539,075** filed **September 26, 2011** ("the priority application").

AND WHEREAS, **Drexel University**, ASSIGNEE, having a place of business at **3141 Chestnut Street, Philadelphia, Pennsylvania 19104**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 20th day of November, year of 2012.



Signature – Jonathan E. Spanier

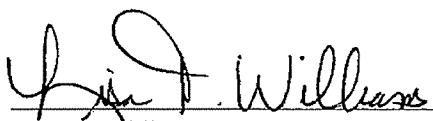
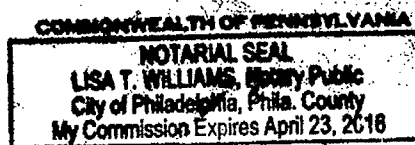
STATEMENT OF NOTARY PUBLIC

STATE OF Pennsylvania:

: SS

COUNTY OF Philadelphia:

On this 20th day of November, year of 2012, before me personally came the above named **Jonathan E. Spanier** to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.


Notary Public

ASSIGNMENT

WHEREAS, I, **Guannan Chen**, a citizen of **China**, residing at **3613 Baring Street, Apt. 3F, Philadelphia, Pennsylvania 19104**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **DXU-0451 / 11-1339D** ("the invention"), assigned application number **13/626,934** filed **September 26, 2012**, which is entitled **TUNABLE HOT-ELECTRON TRANSFER WITHIN A NANOSTRUCTURE** ("the subject application"), and which claims priority to patent application number **61/539,075** filed **September 26, 2011** ("the priority application").

AND WHEREAS, **Drexel University**, ASSIGNEE, having a place of business at **3141 Chestnut Street, Philadelphia, Pennsylvania 19104**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

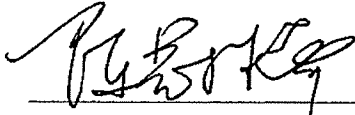
AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 9th day of November, year of 2012.



Signature – Guannan Chen

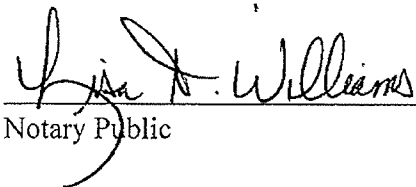
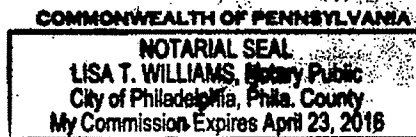
STATEMENT OF NOTARY PUBLIC

STATE OF Pennsylvania :

: SS

COUNTY OF Philadelphia :

On this 9th day of November, year of 2012, before me personally came the above named **Guannan Chen** to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.


Notary Public

ASSIGNMENT

WHEREAS, I, **Eric M. Gallo**, a citizen of **United States**, residing at **4021 Mitchell Street, Philadelphia, Pennsylvania 19128**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **DXU-0451 / 11-1339D** ("the invention"), assigned application number **13/626,934** filed **September 26, 2012**, which is entitled **TUNABLE HOT-ELECTRON TRANSFER WITHIN A NANOSTRUCTURE** ("the subject application"), and which claims priority to patent application number **61/539,075** filed **September 26, 2011** ("the priority application").

AND WHEREAS, **Drexel University**, ASSIGNEE, having a place of business at **3141 Chestnut Street, Philadelphia, Pennsylvania 19104**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States; any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 7 day of November, year of 2012.


Signature – Eric M. Gallo

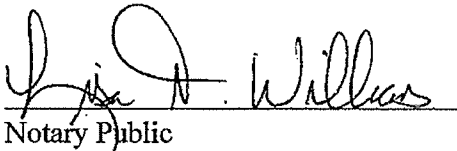
STATEMENT OF NOTARY PUBLIC

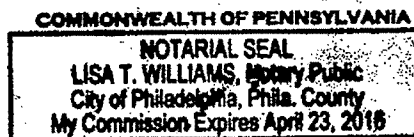
STATE OF Pennsylvania :

: SS

COUNTY OF Philadelphia :

On this 7 day of November, year of 2012, before me personally came the above named **Eric M. Gallo** to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.


Notary Public



ASSIGNMENT

WHEREAS, I, **Baris Taskin**, a citizen of **Turkey**, residing at **763 South Sixth Street, Philadelphia, Pennsylvania 19146**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **DXU-0451 / 11-1339D** ("the invention"), assigned application number **13/626,934** filed **September 26, 2012**, which is entitled **TUNABLE HOT-ELECTRON TRANSFER WITHIN A NANOSTRUCTURE** ("the subject application"), and which claims priority to patent application number **61/539,075** filed **September 26, 2011** ("the priority application").

AND WHEREAS, **Drexel University**, ASSIGNEE, having a place of business at **3141 Chestnut Street, Philadelphia, Pennsylvania 19104**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

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representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 11th day of October, year of 2012.


Signature – Baris Taskin

STATEMENT OF NOTARY PUBLIC

STATE OF PA.:

: SS

COUNTY OF PHILA.:

On this 11 day of OCTOBER, year of 2012, before me personally came the above named **Baris Taskin** to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



Notary Public

