

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Andrew Marshall Rappe</td> <td>09/18/2007</td> </tr> <tr> <td>Na Sai</td> <td>09/21/2007</td> </tr> <tr> <td>Alexie Michelle Kolpak</td> <td>11/30/2007</td> </tr> </tbody> </table>		Name	Execution Date	Andrew Marshall Rappe	09/18/2007	Na Sai	09/21/2007	Alexie Michelle Kolpak	11/30/2007
Name	Execution Date								
Andrew Marshall Rappe	09/18/2007								
Na Sai	09/21/2007								
Alexie Michelle Kolpak	11/30/2007								
RECEIVING PARTY DATA									
Name:	The Trustees Of The University Of Pennsylvania								
Street Address:	3160 Chestnut Street								
City:	Philadelphia								
State/Country:	PENNSYLVANIA								
Postal Code:	19104								
PROPERTY NUMBERS Total: 1									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11774793</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11774793				
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Application Number:	11774793								
CORRESPONDENCE DATA									
Fax Number:	(215)568-3439								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
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ATTORNEY DOCKET NUMBER:	UPNA-0103								
NAME OF SUBMITTER:	Faith A. Poore								

Total Attachments: 4
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ASSIGNMENT

WHEREAS, we **Andrew Marshall Rappe** residing at **1248 Greentree Lane, Penn Valley, Pennsylvania 19072**, **Na Sai** residing at **7701 Rialto Boulevard, #1326, Austin, Texas 78735**, and **Alexie Michelle Kolpak** residing at **39B Woodland Street, New Haven, Connecticut 06511**, hereinafter referred to as the assignors, are the joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Application No. **11/774,793**, filed **July 9, 2007**, entitled **FERROELECTRIC THIN FILMS**; and

WHEREAS, **The Trustees Of The University Of Pennsylvania** hereinafter referred to as the assignee, of **3160 Chestnut Street, Suite 200, Philadelphia, Pennsylvania 19104**, a university of higher education in **Pennsylvania**, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said provisional application, and to any patent application(s) corresponding thereto, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, we, the said assignors, have sold, assigned, transferred and set over, effective as of July 9, 2006, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything

possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, we hereby authorize our attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

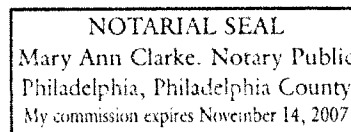
18 Sep 2007
Date

Andrew M. Rappe (L.S.)
Andrew Marshall Rappe

STATE OF Pennsylvania :
COUNTY OF Philadelphia : SS

On this 19 day of September, year of 2007, before me personally came the above named **Andrew Marshall Rappe** 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.

Mary Ann Clarke
Notary Public



DOCKET NO.: UPNA-0103 / S4186

PATENT
Joint Inventors
(Pending Application;
Application No. Known)

11/30/07
Date

Alexie M. Kolpak (L.S.)
Alexie Michelle Kolpak

STATE OF Connecticut :
COUNTY OF New Haven : SS

On this 30 day of November, year of 2007, before me personally came the above named **Alexie Michelle Kolpak** 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.

Aisha J. Mangen
Notary Public