

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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>Thomas R. Shrout</td> <td>09/19/2012</td> </tr> <tr> <td>Shujun Zhang</td> <td>10/09/2012</td> </tr> <tr> <td>Fei Li</td> <td>10/09/2012</td> </tr> </tbody> </table>		Name	Execution Date	Thomas R. Shrout	09/19/2012	Shujun Zhang	10/09/2012	Fei Li	10/09/2012		
Name	Execution Date										
Thomas R. Shrout	09/19/2012										
Shujun Zhang	10/09/2012										
Fei Li	10/09/2012										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>The Penn State Research Foundation</td> </tr> <tr> <td>Street Address:</td> <td>304 Old Main</td> </tr> <tr> <td>City:</td> <td>University Park</td> </tr> <tr> <td>State/Country:</td> <td>PENNSYLVANIA</td> </tr> <tr> <td>Postal Code:</td> <td>16802</td> </tr> </table>		Name:	The Penn State Research Foundation	Street Address:	304 Old Main	City:	University Park	State/Country:	PENNSYLVANIA	Postal Code:	16802
Name:	The Penn State Research Foundation										
Street Address:	304 Old Main										
City:	University Park										
State/Country:	PENNSYLVANIA										
Postal Code:	16802										
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>13206971</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13206971						
Property Type	Number										
Application Number:	13206971										
CORRESPONDENCE DATA											
Fax Number: 7349136007 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 734-913-9300 Email: docket@patlaw.com Correspondent Name: Douglas L. Wathen Address Line 1: P.O. Box 7021 Address Line 4: Troy, MICHIGAN 48007											
ATTORNEY DOCKET NUMBER:	PST-66980/36										
NAME OF SUBMITTER:	Douglas L. Wathen										
Total Attachments: 2 source=doc00703620121009142950#page1.tif source=doc00703620121009142950#page2.tif											

OP \$40.00 13206971

PATENT

ASSIGNMENT

FOR VALUE RECEIVED, and pursuant to my obligations under our employment agreements/appointments with THE PENNSYLVANIA STATE UNIVERSITY ("University"), we THOMAS R. SHROUT, SHUJUN ZHANG and FEI LI, hereby sell, assign and transfer unto the University's designee, **THE PENN STATE RESEARCH FOUNDATION**, as assignee, and its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter invented by me and disclosed or claimed in an application for Letters Patent of the United States of America, entitled:

"Temperature and Field Stable Relaxor-PT Piezoelectric Single Crystals"

signed by me on the date set forth below; and in and to any and all continuations, continuations-in-part, divisions, reissues, renewals, extensions, substitutions, additions or reexaminations of such application and any U.S. patents issuing thereon; and in and to any and all corresponding international and foreign applications for Letters Patent and any foreign patents issuing thereon; and all Convention and Treaty Rights of any kind, in all countries throughout the world, for all such subject matter; together with all claims for damages by reason of future, present and past infringement, with the right to sue for and collect the same for assignee's use and on behalf of assignee's successors, assigns and legal representative.

We request that any and all patents for said inventions be issued to said assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said assignee but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing, maintaining and enforcing patents for said inventions in any and all countries and for vesting title thereto in said assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower the said assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of said assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

We covenant with said assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

Signed at University Park, Pennsylvania, this 19th day of September, 2012.

Witness: Ronald S. August

Signed: TH R Shrou
THOMAS R. SHROUT

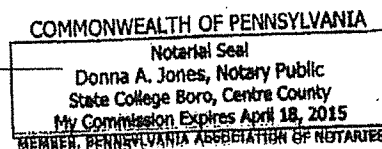
STATE OF PENNSYLVANIA :
: ss:
COUNTY OF CENTRE :

On this 19th day of September, 2012, before me, a Notary Public in and for the county and State aforesaid, appeared Thomas R. Shrou, 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.

Donna A. Jones
Notary Public

[Page 1 of 2 - Signatures Continued on Page 2]



Signed at University Park, Pennsylvania, this 9th day of October, 2012.

Witness: Hua Tang

Signed: Shujun Zhang
SHUJUN ZHANG

STATE OF PENNSYLVANIA :
: ss:
COUNTY OF CENTRE :

On this ____ day of _____, 2012, before me, a Notary Public in and for the county and State aforesaid, appeared Shujun Zhang, 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

Signed at University Park, Pennsylvania, this 9th day of Oct, 2012.

Witness: Hua Tang

Signed: Fei Li
FEI LI

STATE OF :
: ss:
COUNTY OF :

On this ____ day of _____, 2012, before me, a Notary Public in and for the county and State aforesaid, appeared Fei Li, 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