Form PTO-1595 (Rev. 08/05) Doc Code: <b>1-29222</b> OMB No. 0661-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERC
RECORDATION FOR	
	TS ONLY
To the Director of the U.S. Patent and Trademark Office: Plear	se record the attached documents or the new address(es) below,
Name of conveying party(ies)     Xunming Deng	2. Name and address of receiving party(ies)
Aunming Deng	Name: The University of Toledo
	internal Address:
Additional name(s) of conveying party(ies) attached? Yes No	Street Address: 2801 W. Bancroft Street
3. Nature of conveyance/Execution Date(s):	THE PARTY OF THE P
Execution Date(s) March 6, 2008  S Assignment	
	City: Toledo
<ul> <li>☐ Security Agreement</li> <li>☐ Change of Name</li> <li>☐ Joint Research Agreement</li> </ul>	State: Ohio
☐ Government Interest Assignment	Country: <u>US</u> Zip: 43606
☐ Executive Order 9424, Confirmatory License	
☐ Other	Additional name(s) & address(es) attached?   Yes  No
4. Application or patent number(s):	document is being filed together with a new application.
A. Patent Application No.(s)	B. Patent No.(s)
11/899,799 filed September 7, 2007	
Additional numbers atta	rached? ☐ Yes 🗵 No
5. Name and address to whom correspondence concerning document should be mailed;	6. Total number of applications and patents involved:
Name at the control of the control o	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address:	☐ Authorized to be charged by credit card
MacMillan, Sobanski & Todd, LLC	Authorized to be charged to deposit account
Street Address: One Maritime Plaza, Fifth Floor	☐ Enclosed ☐ None required (government interact not offseting title)
720 Water Street	— Hone reduited (government interest not snectifig title)
City: Toledo	8. Payment Information
State: OH Zip: 43604	a. Credit Card Last 4 Numbers
Phone Number: (419) 255-5900	Expiration Date
Fax Number: (419) 255-9639	b. Deposit Account Number 13-0005
Email Address: martineau@mstfirm.com	Authorized User Name MacMillan Sobanski Todd
9. Signature: Callynne B Martingan	March 6, 2008
Signature	Date
Catherine B. Martineau, Reg. No. 31,854	Total number of pages including 3
Name of Person Signing	cover

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

PATENT REEL: 020619 FRAME: 0976

## ASSIGNMENT

Attorney Docket No. 1-29222/PHYS00402B

WHEREAS I,

Xunming Deng, of 7749 Sandia Court, Sylvania, Ohio 43560

have made certain inventions in a

## HYBRID WINDOW LAYER FOR PHOTOVOLTAIC CELLS,

the specification of which has *United States Serial No. 11/899,799*, filed *September 7, 2007*, which is a divisional application of *United States Serial No. 10/696,545*, filed *October 29, 2003*, and

WHEREAS, *The University, of Toledo*, of 2801 W. Bancroft Street, Toledo, Ohio, organized and operating in the State of Ohio, herein called "ASSIGNEE", is desirous of acquiring our entire right, title, and interest in said invention and application therefor, and in any patent or patents to be obtained therefor;

NOW, THEREFORE, To All Whom It May Concern, be it known that, for and in consideration of the sum of One Dollar (\$1.00), and other good and valuable considerations, the receipt of which is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do-hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said Inventions, including the right to claim priority to said Inventions; (b) in and to all rights to all United States and corresponding non-United States patent applications and Patent(s), including those filed under the Paris Convention for the Protection of Industrial Property, The Patent Cooperation Treaty or otherwise; (c) in and to any and all applications filed and any and all Patent(s) granted on said Inventions in the United States, in any foreign country, or under any international convention, agreement, protocol, or treaty, including each and every application filed and any and all Patent(s) granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said Application(s); and (d) in and to each and every reissue, reexamination, or extensions of any of said Patent(s).

And I further covenant and agree that I will, at the request and expense of the said Assignee, execute such other and further assurances of title as may be necessary or proper to fully convey the interest herein sought to be conveyed; that I will, at the request and expense of the said Assignee, execute such application papers as may be desired by the said Assignee for the filing of any division or renewal of the application herein conveyed, or for the reissues or extensions of any Letters Patent that may be granted upon said application, and will execute such Supplemental Oaths and Preliminary Statements, or other papers as desired by the said Assignee.

And I further assign unto the said Assignee our whole right, title, and interest to the invention disclosed in the application throughout all countries foreign to the United States, and do hereby authorize the said Assignee to apply for patents therefor in its own name in countries where such procedure is proper and to claim the benefit of the International Convention and do agree to execute applications for the said invention in the several countries where it is necessary that the same be executed by the inventors, and to execute assignments of such applications and the patents to be obtained therefor to the said assignee, as well as all other necessary papers.

I do hereby authorize and request the Commissioner of Patents or other proper Officer, to issue such Letters Patent, or any of them, to the said Assignee, as the assignee of our entire right, title, and interest in and to the same for the sole use and behalf of the said Assignee, and its successors or assigns.

Page 1 of 2

PATENT

REEL: 020619 FRAME: 0977

## ASSIGNMENT

Attorney Docket No. 1-29222/PHYS00402B

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my seal at  Toledo (city), Offic (state), this for day of Nach, 2006
Xunming Deng
STATE OF COUNTY OF Lace ) :ss
This day of 2008 before me, a Notary Public in and for the County aforesaid, personally appeared known to be the person described in and who executed the foregoing assignment and acknowledged the same to be his voluntary act and deed, and that he executed the same for the uses and purposes therein set forth.
1

Notary Public

REEL: 020619 FRAME: 0978