

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>Oray Orkun Cellek</td> <td>02/20/2013</td> </tr> <tr> <td>Yong-Hang Zhang</td> <td>04/09/2013</td> </tr> </tbody> </table>		Name	Execution Date	Oray Orkun Cellek	02/20/2013	Yong-Hang Zhang	04/09/2013
Name	Execution Date						
Oray Orkun Cellek	02/20/2013						
Yong-Hang Zhang	04/09/2013						
RECEIVING PARTY DATA							
Name:	Arizona Board of Regents, a body corporate of the State of Arizona, acting for and on behalf of Arizona State University						
Street Address:	1475 North Scottsdale Road						
Internal Address:	SkySong - Suite 200						
City:	Scottsdale						
State/Country:	ARIZONA						
Postal Code:	85257						
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>13724244</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13724244		
Property Type	Number						
Application Number:	13724244						
CORRESPONDENCE DATA							
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<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
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ATTORNEY DOCKET NUMBER:	11-1459-US						
NAME OF SUBMITTER:	David Harper						
Signature:	/David Harper/						

CH \$40.00 13724244

Date:

04/15/2013

Total Attachments: 4

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ASSIGNMENT

Case No: **11-1459-US**
Inventors: **Oray Orkun Cellek and Yong-Hang Zhang**
Date of Execution
of Application:

Serial No: **13/724,244**
Filing Date: **December 21, 2012**

In consideration of good and valuable consideration provided to assignor, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to:

Arizona Board of Regents, a body corporate of the State of Arizona, acting for and on behalf of Arizona State University

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

"Multiband Photodetector Utilizing Unipolar and Bipolar Devices"

and identified as:

Case No. 11-1459-US

in the offices of MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign (including but not limited to all countries on the list below*), which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries (including but not limited to all countries on the list below*), which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorize and request the United States Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

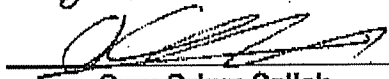
The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries (including but not limited to all countries on the list below*) on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and

further agree, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

*Countries include, but are not limited to: all member countries of the Patent Cooperation Treaty (PCT) including Albania, Algeria, Antigua and Barbuda, Armenia, Australia, Austria, Azerbaijan, Barbados, Belarus, Belgium, Belize, Benin, Bosnia and Herzegovina, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Central African Republic, Chad, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Democratic People's Republic of Korea, Denmark, Dominica, Ecuador, Estonia, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guinea, Guinea-Bissau, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Kenya, Krygyzstan, Latvia, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Mali, Mauritania, Mexico, Monaco, Mongolia, Monaco, Morocco, Netherlands, New Zealand, Niger, Norway, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saint Lucia, Senegal, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Tajikstan, The former Yugoslav Republic of Macedonia, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United Republic of Tanzania, United States of America, Uzbekistan, Vietnam, Yugoslavia, Zambia, Zimbabwe.

WITNESS my hand and seal this 20th day of February, 2013.



Oray Orkun Cellek

State of _____

County of _____

The foregoing instrument was acknowledged before me this _____ day of _____, 2013 by _____

NOTARY PUBLIC

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

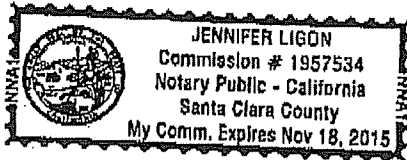
State of California

County of Santa Clara

On Feb 20 2013 before me, Jennifer Ligon Notary Public

personally appeared Oray Orkun Celtek

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Jennifer Ligon

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment

Document Date: 2/20/13 Number of Pages: 3

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Oray Orkun Celtek Signer's Name: _____

Corporate Officer — Title(s): _____ Corporate Officer — Title(s): _____

Individual Partner — Limited General Individual

Attorney in Fact Attorney in Fact

Trustee Trustee

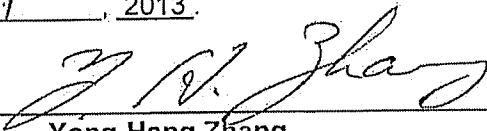
Guardian or Conservator Guardian or Conservator

Other: _____ Other: _____

Signer is Representing: _____ Signer is Representing: _____

himself _____

WITNESS my hand and seal this 9TH day of April, 2013.

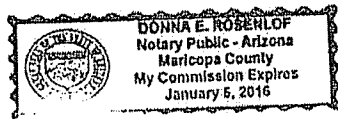


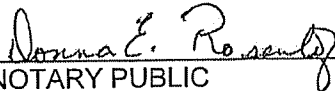
Yong-Hang Zhang

State of ARIZONA

County of MARICOPA

The foregoing instrument was acknowledged before me this 9TH day of
April, 2013 by Yong-Hang Zhang





NOTARY PUBLIC