

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3972768

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RICHARD J. PHILLIPS	08/10/2015
SOUBIR BASAK	10/21/2015
GAURAB SAMANTA	08/10/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SUNEDISON SEMICONDUCTOR LIMITED (UEN201334164H)
<b>Street Address:</b>	9 BATTERY ROAD
<b>Internal Address:</b>	#15-01, STRAITS TRADING BUILDING
<b>City:</b>	SINGAPORE
<b>State/Country:</b>	SINGAPORE
<b>Postal Code:</b>	049910
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15216351
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(314)612-2307
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	314-621-5070
<b>Email:</b>	USpatents@armstrongteasdale.com, clager@armstrongteasdale.com
<b>Correspondent Name:</b>	RICHARD A. SCHUTH (SUNEDISON) ARMSTRONG
<b>Address Line 1:</b>	7700 FORSYTH BOULEVARD
<b>Address Line 2:</b>	SUITE 1800
<b>Address Line 4:</b>	ST. LOUIS, MISSOURI 63105
<b>ATTORNEY DOCKET NUMBER:</b>	28744-4650 (150002.1)
<b>NAME OF SUBMITTER:</b>	MICHAEL G. MUNSELL
<b>SIGNATURE:</b>	/Michael G. Munsell/
<b>DATE SIGNED:</b>	07/21/2016
<b>Total Attachments: 5</b>	
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ASSIGNMENT

**WHEREAS, We** Richard J. Phillips of St. Peters, Missouri, Soubir Basak of Chandler, Arizona, and Gaurab Samanta of St. Louis, Missouri, have invented an improvement in **CRYSTAL GROWING SYSTEMS AND METHODS INCLUDING A TRANSPARENT CRUCIBLE** described in a provisional application for a United States patent assigned Serial No. 62/195,844, filed July 23, 2015;

**AND, WHEREAS,** SunEdison Semiconductor Limited (UEN201334164H), a company incorporated under the laws of Singapore and having its registered address at 9 Battery Road, #15-01, Straits Trading Building, Singapore 049910 (hereinafter referred to as "ASSIGNEE") is desirous of acquiring certain rights thereunder;

**NOW, THEREFORE,** for one dollar and other good and valuable consideration, receipt of all of which is hereby acknowledged, we have agreed to and do hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said invention, said United States application, any other United States applications (including provisional, non-provisional, divisional, continuing, or reissue applications) based in whole or in part on said United States application or in whole or in part on said invention, any foreign applications based in whole or in part on any of the aforesaid United States applications or in whole or in part on said invention, and any and all patents (including extensions thereof) of any country which have been or may be granted on any of the aforesaid applications or on said invention or any part thereof;

**TO BE HELD AND ENJOYED** by said ASSIGNEE, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us had no sale and assignment of said interest been made;

**AND We** hereby authorize and request the Commissioner of Patents of the United States of America to issue any and all United States patents which may be granted upon said United States applications or any of them, or upon said invention or any part thereof, to said ASSIGNEE;

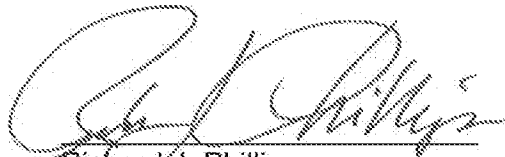
**AND We** hereby jointly and severally agree for ourselves and for our respective heirs, executors and administrators, to execute without further consideration any further lawful documents and any further assurances, and any provisional, non-provisional, divisional, continuing, reissue, or other applications for patents of any country, that may be deemed

necessary by said ASSIGNEE fully to secure to said ASSIGNEE its interest as aforesaid in and to said invention or any part thereof, and in and to said several patents or any of them;

**AND We** hereby jointly and severally covenant for ourselves and our respective legal representatives that we have granted no right or license to make, use or sell said invention, to anyone except said ASSIGNEE, that prior to the execution of this deed our right, title and interest in said invention had not been otherwise encumbered, and that we have not executed and will not execute any instrument in conflict herewith.

IN WITNESS WHEREOF, I have hereunto set my hand.

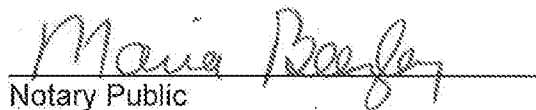
8/10/15  
Date

  
Richard J. Phillips

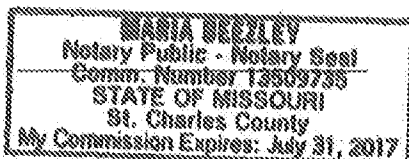
STATE OF Missouri )  
COUNTY OF St. Charles )

On this 10 day of August, 2015, before me, a Notary Public, personally appeared Richard J. Phillips to me known to be the person described in and who executed the foregoing assignment and acknowledged that he executed same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the date and year last above written.

  
Notary Public

My Commission Expires:



IN WITNESS WHEREOF, I have hereunto set my hand.

10/21/2015  
Date

Soubir Basak  
Soubir Basak

STATE OF Missouri  
COUNTY OF St. Charles

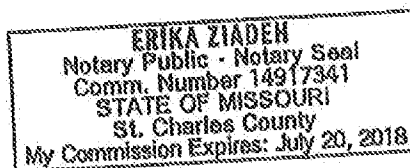
On this 21 day of October, 2015, before me, a Notary Public, personally appeared Soubir Basak to me known to be the person described in and who executed the foregoing assignment and acknowledged that he executed same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the date and year last above written.

Erika Ziadén  
Notary Public

My Commission Expires:

July 20, 2018



IN WITNESS WHEREOF, I have hereunto set my hand.

08/10/2015  
Date

Gaurab Samanta  
Gaurab Samanta

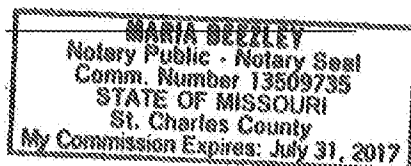
STATE OF Missouri  
COUNTY OF St. Charles

On this 10 day of August, 2015, before me, a Notary Public, personally appeared Gaurab Samanta to me known to be the person described in and who executed the foregoing assignment and acknowledged that he executed same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the date and year last above written.

Maria Beezley  
Notary Public

My Commission Expires:



For and on behalf of SunEdison Semiconductor Limited.

Paul Markowitz  
 Paul Markowitz  
 Director of Intellectual Property  
 SunEdison Semiconductor Limited

Date Aug 11, 2015

STATE OF Missouri  
 COUNTY OF St. Charles

On this 11 day of August, 2015, before me, a Notary Public, personally appeared Paul Markowitz to me known to be the person described in and who executed the foregoing assignment and acknowledged that he executed same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the date and year last above written.

Erika Ziadeh  
 Notary Public

My Commission Expires:

July 20, 2018

