

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6120048

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>SEQUENCE:</b>	1
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
STEPHAN HARINGER	05/22/2013
ROBERTO SCALA	05/22/2013
MARCO D'ANGELLA	05/22/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MEMC ELECTRONIC MATERIALS S.P.A.
<b>Street Address:</b>	VIALE GHERZI 31
<b>City:</b>	NOVARA
<b>State/Country:</b>	ITALY
<b>Postal Code:</b>	28100
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16228235
<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>	3146215070
<b>Email:</b>	uspatents@armstrongteasdale.com
<b>Correspondent Name:</b>	RICHARD A. SCHUTH
<b>Address Line 1:</b>	ARMSTRONG TEASDALE LLP
<b>Address Line 2:</b>	7700 FORSYTH BLVD., SUITE 1800
<b>Address Line 4:</b>	ST. LOUIS, MISSOURI 63105
<b>ATTORNEY DOCKET NUMBER:</b>	28744-4951 (130010.4)
<b>NAME OF SUBMITTER:</b>	RICHARD A. SCHUTH
<b>SIGNATURE:</b>	/Richard A. Schuth/
<b>DATE SIGNED:</b>	05/22/2020
<b>Total Attachments: 4</b>	
source=Executed Assignment#page1.tif	
source=Executed Assignment#page2.tif	

source=Executed Assignment#page3.tif

source=Executed Assignment#page4.tif

**ASSIGNMENT****WHEREAS, We**

Stephan HARINGER	of	Novara, Italy
Roberto SCALA	of	Novara, Italy
Marco D'ANGELLA	of	Novara, Italy

have invented an improvement in GAS DOPING SYSTEMS FOR CONTROLLED DOPING OF A MELT OF SEMICONDUCTOR OR SOLAR-GRADE MATERIAL described in PCT International Patent Application No. PCT/IT2013/000077, filed in the Italian Patent Office (*as the Receiving Office for International Bureau at WIPO*) on 15 March 2013 (hereinafter referred to as "PCT Application");

**AND, WHEREAS**, MEMC Electronic Materials S.p.A. of Viale Gherzi 31, 28100 Novara, Italy, an Italian corporation, (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 to said invention, including any patents and applications in the United States and any and all countries including any provisional, non-provisional, divisional, continuing, reexamination or reissue applications based in whole or in part on said PCT Application, or in whole or in part on said invention, or in any country applications based in whole or in part on any of the aforesaid applications or in whole or in part on any 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, and all rights of priority resulting from the filing of said PCT Application;

**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 any official in any country whose duty it is to issue patents, to issue any and all patents which may be granted on

said applications or any of them, or upon said invention and improvements 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.

Haringer Stephan  
Stephan HARINGER

22/05/13  
Date

Christoph J. Haringer  
Witness

Oliver Haringer  
Witness

IN WITNESS WHEREOF, I have hereunto set my hand.



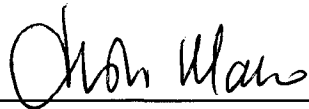
Roberto SCALA



Date

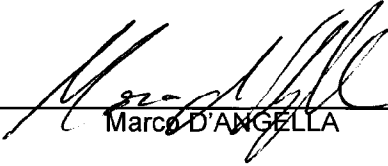


Witness




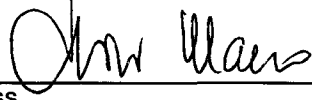
Witness

IN WITNESS WHEREOF, I have hereunto set my hand.

  
\_\_\_\_\_  
Marco D'ANGELLA

22/5/2013  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Witness

  
\_\_\_\_\_  
Witness