

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4540853

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
SOLEXEL, INC.	12/19/2014
RECEIVING PARTY DATA	
Name:	OPUS BANK
Street Address:	19900 MACARTHUR BLVD, 12TH FLOOR
City:	IRVINE
State/Country:	CALIFORNIA
Postal Code:	92612
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	14792412
Application Number:	14632696
CORRESPONDENCE DATA	
Fax Number:	(215)542-5825
<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>	
Phone:	215-542-5824
Email:	assignments@phd-ip.com
Correspondent Name:	HOWARD IP LAW GROUP, PC
Address Line 1:	PO BOX 226
Address Line 4:	FORT WASHINGTON, PENNSYLVANIA 19034
ATTORNEY DOCKET NUMBER:	049US0C1 AND 123US1
NAME OF SUBMITTER:	ELLEN M. DRAEGERT
SIGNATURE:	/Ellen M. Draegert/
DATE SIGNED:	08/08/2017
Total Attachments: 55	
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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (as amended, amended and restated, supplemented or otherwise modified from time to time, the "*IP Security Agreement*") dated as of December 19, 2014, is made by SOLEXEL, INC., a Delaware corporation (herein referred to as "*Grantor*" or "*Debtor*") in favor of OPUS BANK, a California Commercial Bank ("*Opus*" or "*Lender*") as Lender under that certain Credit Agreement dated as of the date hereof between Debtor and Lender (as amended and restated, supplemented or otherwise modified from time to time, the "*Credit Agreement*"). Capitalized terms used herein and not otherwise defined herein are used herein as defined in the Credit Agreement.

WHEREAS, as a condition precedent to the making of Loans by the Lender, Grantor has executed and delivered that certain General Security Agreement dated as of the date hereof between the Grantor and the Lender (as amended, amended and restated, supplemented or otherwise modified from time to time, the "*Security Agreement*").

WHEREAS, under the terms of the Security Agreement, the Grantor has granted a security interest in, among other property, certain intellectual property of the Grantor to the Lender, and has agreed as a condition thereof to execute this IP Security Agreement covering such intellectual property for recording with the U.S. Patent and Trademark Office, the United States Copyright Office and other governmental authorities.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor agrees as follows:

SECTION 1. Grant of Security. Grantor hereby grants to the Lender a security interest in and to all of Grantor's right, title and interest in and to the following (the "*Collateral*"):

(i) the United States, international, and foreign patents, patent applications and patent licenses set forth in **Schedule A** hereto (as such Schedule A may be supplemented from time to time by supplements to the Security Agreement and this IP Security Agreement, each such supplement, an "*IP Security Agreement Supplement*"), executed and delivered by Grantor to the Lender from time to time), together with all reissues, divisions, continuations, continuations-in-part, extensions and reexaminations thereof, and all rights therein provided by international treaties or conventions (the "*Patents*"); provided, however, that in no event will any assets (including any interests in Borrower's Material IP) located outside of the United States be included in the Collateral;

(ii) the United States and foreign trademark and service mark registrations, applications, and licenses set forth in **Schedule B** hereto (as such Schedule B may be supplemented from time to time by IP Security Agreement Supplements executed and delivered by Grantor to the Lender from time to time) (the "*Trademarks*");

(iii) the copyrights, United States and foreign copyright registrations and applications and copyright licenses set forth in **Schedule C** hereto (as such Schedule C may

be supplemented from time to time by IP Security Agreement Supplements executed and delivered by Grantor to the Lender from time to time) (the "Copyrights");

(iv) any and all claims for damages for past, present and future infringement, misappropriation or breach with respect to the Patents, Trademarks and Copyrights, with the right, but not the obligation, to sue for and collect, or otherwise recover, such damages; and

(v) any and all proceeds of the foregoing.

Notwithstanding the foregoing, however, the Collateral shall not include any intent-to-use trademarks, prior to the filing of a "Statement of Use" with respect thereto if and solely to the extent that (and so long as) any such intent-to-use trademark application would be rendered void by the attachment or creation of a security interest in the right, title or interest of such Grantor therein).

SECTION 2. Security for Obligations. The grant of a security interest in, the Collateral by Grantor under this IP Security Agreement secures the payment of the Obligations (as defined in the Security Agreement) of Grantor now or hereafter existing, whether direct or indirect, absolute or contingent, and whether for principal, reimbursement obligations, interest (including any interest that accrues after the commencement of bankruptcy), premiums, penalties, fees, indemnifications, contract causes of action, costs, expenses or otherwise.

SECTION 3. Recordation. Grantor authorizes and requests that the Register of Copyrights, the Commissioner of Patents and Trademarks and any other applicable government officer record this IP Security Agreement.

SECTION 4. Execution in Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

SECTION 5. Grants, Rights and Remedies. This IP Security Agreement has been entered into in conjunction with the provisions of the Security Agreement. Grantor does hereby acknowledge and confirm that the grant of the security interest hereunder to, and the rights and remedies of, the Lender with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated herein by reference as if fully set forth herein.

SECTION 6. Governing Law. This IP Security Agreement shall be governed by, and construed in accordance with, the law of the State of California.

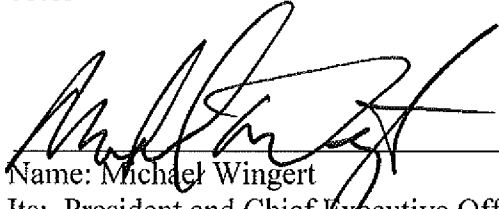
[Signature Page Follows]

IN WITNESS WHEREOF, Grantor has caused this IP Security Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

Address for Notices:


Solexel, Inc.
1504-1530 McCarthy Blvd.
Milpitas, CA 95035
Attention: Mark Kerstens

SOLEXEL, INC., a Delaware corporation, as
Debtor

By: 
Name: Michael Wingert
Its: President and Chief Executive Officer

IN WITNESS WHEREOF, the Lender has caused this IP Security Agreement to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

OPUS BANK, as Lender

By: 
Name: Kevin P. McBride
Its: Senior Managing Director

Address for Notices:

303 Twin Dolphin Drive
#6006
Redwood Shores, California 94065
Attn: Kevin McBride, Managing Director
Telephone: (415) 683-9580
E-mail: kmcbride@opusbank.com

[SIGNATURE PAGE TO IP SECURITY AGREEMENT]

PATENT
REEL: 034782 FRAME: 0063

**Schedule A to the
IP Security Agreement**

PATENTS:

(See Attached)

Wednesday, December 17, 2014

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
001	EP	PCT	07868383.6-1235			Pending
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: Template for three-dimensional thin-film solar cell manufacturing and methods of use						
001	IN	PCT	1756/K/OLNP/2009			Pending
India						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: D.P. Ahuja & Co.						
Title: Template for three-dimensional thin-film solar cell manufacturing and methods of use						
001	DIW1	PCT	2014-084330			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: Template for three-dimensional thin-film solar cell manufacturing and methods of use						
001	JP	PCT	2009-532512		5528809	Granted
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: Template for three-dimensional thin-film solar cell manufacturing and methods of use						
001	0	ORD	11/868,488	20080157283	8129822	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Template for three-dimensional thin-film solar cell manufacturing and methods of use						
002	1	ORD	12/767,791	20100304521		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: METHODS FOR MANUFACTURING THREE-DIMENSIONAL THIN-FILM SOLAR CELLS						

PATENT

REEL: 034782 FRAME: 0665

Wednesday, December 17, 2014

Patent LisvStatus (by Case Number)

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Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
003	0	ORD	1/1868,490	20080295887	8084684	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Three-dimensional thin-film solar cells						
003	1	ORD	13/355,237	20120180867	8324499	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Three-dimensional thin-film solar cells						
003	2	ORD	13/692,599	20130167904		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Three-dimensional thin-film solar cells						
004	0	ORD	1/1868,491	20090301549	7999174	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Solar module structures and assembly methods for three-dimensional thin-film solar cells						
004	1	ORD	13/187,291	20120017971	8742249	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Solar module structures and assembly methods for three-dimensional thin-film solar cells						
004	2	ORD	14/293,676			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SOLAR MODULE STRUCTURES AND ASSEMBLY METHODS FOR THREE-DIMENSIONAL THIN-FILM SOLAR CELLS						

PATENT

REEL: 034782 FRAME: 0066

Wednesday, December 17, 2014

Patent LisvStatus (by Case Number)

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Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
005	0	ORD	11/841,629	20080047601	7786376	Granted
			20-Aug-2007	28-Feb-2008	31-Aug-2010	
			Attorneys:			
			<u>Client Reference:</u>			
			<u>Agent Reference:</u>			
United States of America						
			Owner Name: Solexel, Inc.			
			<u>Division Name:</u>			
			<u>Agent Name:</u>			
Title: HIGH EFFICIENCY SOLAR CELLS AND MANUFACTURING METHODS						
007	CN	PCT	200780045520.2	101657904	200780045520	Granted
			07-Oct-2007	24-Feb-2010	11-Jul-2012	
			Attorneys: JW IP			
			<u>Client Reference:</u>			
			<u>Agent Reference:</u> JQIP111043US			
China (People's Republic)						
			Owner Name: Solexel, Inc.			
			<u>Division Name:</u>			
			<u>Agent Name:</u> Jiaquan IP Law Firm			
Title: Pyramidal three-dimensional thin-film solar cells						
007	EP	PCT	07868386.9-1235			Pending
European Patent Convention						
			Owner Name: Solexel, Inc.			
			<u>Division Name:</u>			
			<u>Agent Name:</u> Richardt Patentanwalt			
Title: Pyramidal three-dimensional thin-film solar cells						
007	IN	PCT	1725/KOLNP/2009			Pending
			08-May-2009			
			Attorneys: JW IP			
			<u>Client Reference:</u>			
			<u>Agent Reference:</u> SOL_209_01 EP			
India						
			Owner Name: Solexel, Inc.			
			<u>Division Name:</u>			
			<u>Agent Name:</u> D.P. Ahuja & Co.			
Title: Pyramidal three-dimensional thin-film solar cells						
007	DIV1	PCT	2014-076786			Pending
			03-Apr-2014			
			Attorneys: JW IP			
			<u>Client Reference:</u>			
			<u>Agent Reference:</u> PN22158			
Japan						
			Owner Name: Solexel, Inc.			
			<u>Division Name:</u>			
			<u>Agent Name:</u> Nakamura & Partners			
Title: Pyramidal three-dimensional thin-film solar cells						
007	JP	PCT	2009-532513		5519285	Granted
			07-Oct-2007			
			11-Apr-2014			
			Attorneys: JW IP			
			<u>Client Reference:</u>			
			<u>Agent Reference:</u> X1V-1257			
Japan						
			Owner Name: Solexel, Inc.			
			<u>Division Name:</u>			
			<u>Agent Name:</u> Nakamura & Partners			
Title: Pyramidal three-dimensional thin-film solar cells						
007	JP	PCT	2009-532513		5519285	Granted
			07-Oct-2007			
			11-Apr-2014			
			Attorneys: JW IP			
			<u>Client Reference:</u>			
			<u>Agent Reference:</u> X1V-1257			

PATENT

REEL: 034782 FRAME: 0063

Patent LisvStatus (by Case Number)

Case Number	Country	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
007	United States of America	0	ORD	11/868,493	06-Oct-2007	20080289684	27-Nov-2008	8035028	11-Oct-2011	Granted
<u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Pyramidal three-dimensional thin-film solar cells <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>										
008	United States of America	0	ORD	11/868,494	06-Oct-2007	20080210294	04-Sep-2008	8035027	11-Oct-2011	Granted
<u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Solar module structures and assembly methods for pyramidal three-dimensional thin-film solar cells <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>										
008	United States of America	1	ORD	13/188,303	21-Jul-2011	20120012160	19-Jan-2012	8847060	30-Sep-2014	Granted
<u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Solar module structures and assembly methods for pyramidal three-dimensional thin-film solar cells <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>										
008	United States of America	2	ORD	14/500,757	29-Sep-2014					Pending
<u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Solar module structures and assembly methods for pyramidal three-dimensional thin-film solar cells <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>										
009	European Patent Convention	EP1	PCT	107/49454.4	08-Mar-2010	2404317	11-Jan-2012			Published
<u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Solar module structures and assembly methods for pyramidal three-dimensional thin-film solar cells <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> SOL.211.06 WOEP										
009	United States of America	0	ORD	12/473,811	28-May-2009	20100022074	20100022074	7745313	29-Jun-2010	Granted
<u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Substrate release methods and apparatuses <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>										

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
009	1	ORD	12/719,766	20100279494	8293558	Granted
			08-Mar-2010	04-Nov-2010	23-Oct-2012	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Substrate release methods and apparatuses						
009	2	ORD	12/826,641	20110021006	8193076	Granted
			29-Jun-2010	27-Jan-2011	05-Jun-2012	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Substrate release methods and apparatuses						
009	3	ORD	13/463,757	20120272490		Published
			03-May-2012	01-Nov-2012		
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Substrate release methods and apparatuses						
009	4	ORD	13/657,718	20130280887		Published
			22-Oct-2012	24-Oct-2013		
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Method For Releasing a Thin-Film Substrate						
010	0	ORD	12/193,415	20090042320	8512581	Granted
			18-Aug-2008	12-Feb-2009	20-Aug-2013	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: METHODS FOR LIQUID TRANSFER COATING OF THREE-DIMENSIONAL SUBSTRATES						
010	1	ORD	13/942,150	20140127834		Allowed
			15-Jul-2013	08-May-2014		
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: METHODS FOR LIQUID TRANSFER COATING OF THREE-DIMENSIONAL SUBSTRATES						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
017	EP	PCT	09826880.8	2356675		Allowed
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name: Richardt Patentanwalte						
Agent Name: Richardt Patentanwalte						
Title: Three-dimensional semiconductor template for making high efficiency thin-film solar cells						
017	0	ORD	12/618,649	20100148318	8168465	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name: Solexel, Inc.						
Agent Name: Solexel, Inc.						
Title: Three-dimensional semiconductor template for making high efficiency thin-film solar cells						
017	1	ORD	13/345,935	20120174861	8664737	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name: Solexel, Inc.						
Agent Name: Solexel, Inc.						
Title: Three-dimensional semiconductor template for making high efficiency thin-film solar cells						
017	2	ORD	14/195,748			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name: Solexel, Inc.						
Agent Name: Solexel, Inc.						
Title: Three-dimensional semiconductor template for making high efficiency thin-film solar cells						
018	EP	PCT	09829825	2371006		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name: Richardt Patentanwalte						
Agent Name: Richardt Patentanwalte						
Title: Truncated pyramid structures for see-through solar cells						
018	MY	PCT	P12011002341			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name: Pintas IP Group						
Agent Name: Pintas IP Group						
Title: Truncated pyramid structures for see-through solar cells						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
018	0	ORD	12/626,778	20100116316	8053665	Granted
			27-Nov-2009	13-May-2010	08-Nov-2011	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Truncated pyramid structures for see-through solar cells						
018	2	ORD	13/193,302	20120021560	8853521	Granted
			28-Jul-2011	26-Jan-2012	07-Oct-2014	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Truncated pyramid structures for see-through solar cells						
018	3	ORD	14/507,786			Pending
			06-Oct-2014			
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: TRUNCATED PYRAMID STRUCTURES FOR SEE-THROUGH SOLAR CELLS						
019	0	ORD	12/728,772	20100294333	8828517	Granted
			22-Mar-2010	25-Nov-2010	09-Sep-2014	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: STRUCTURE AND METHOD FOR IMPROVING SOLAR CELL EFFICIENCY AND MECHANICAL STRENGTH						
019	1	ORD	14/479,523			Pending
			08-Sep-2014			
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: STRUCTURE AND METHOD FOR IMPROVING SOLAR CELL EFFICIENCY AND MECHANICAL STRENGTH						
020	EP	PCT	10732153.1	2387458	2387458	Granted
			15-Jan-2010	23-Nov-2011	05-Mar-2014	
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: POROUS SILICON ELECTRO-ETCHING SYSTEM AND METHOD						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
020	MY	PCT	PI2011003342			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: POROUS SILICON ELECTRO-ETCHING SYSTEM AND METHOD						
020	0	ORD	12/688,495	20110120882		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: POROUS SILICON ELECTRO-ETCHING SYSTEM AND METHOD						
021	CN	PCT	2010800604938	102714227		Published
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: STRUCTURES AND METHODS FOR HIGH-EFFICIENCY PYRAMIDAL THREE-DIMENSIONAL SOLAR CELLS						
021	EP	PCT	10830677.0	2499674		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: STRUCTURES AND METHODS FOR HIGH-EFFICIENCY PYRAMIDAL THREE-DIMENSIONAL SOLAR CELLS						
021	0	ORD	12/615,383	20110108098		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: STRUCTURES AND METHODS FOR HIGH-EFFICIENCY PYRAMIDAL THREE-DIMENSIONAL SOLAR CELLS						
022	EP	PCT	10739242.5	2394296		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: Trench formation method for releasing a thin-film substrate from a reusable semiconductor template						
Title: STRUCTURES AND METHODS FOR HIGH-EFFICIENCY PYRAMIDAL THREE-DIMENSIONAL SOLAR CELLS						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: Trench formation method for releasing a thin-film substrate from a reusable semiconductor template						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
022	MY	PCT	PI2011700122			Pending
Malaysia						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Pintas IP Group						
<u>Title:</u> Trench formation method for releasing a thin-film substrate from a reusable semiconductor template						
022	0	ORD	12/702,187	20100203711	8278192	Granted
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Solexel, Inc.						
<u>Title:</u> Trench formation method for releasing a thin-film substrate from a reusable semiconductor template						
022	1	ORD	13/633,723	20130273721		Published
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> Trench formation method for releasing a thin-film substrate from a reusable semiconductor template						
024	CN	PCT	201080021690.9	102427971		Allowed
China (People's Republic)						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Jiaquan IP Law Firm						
<u>Title:</u> HIGH EFFICIENCY EPITAXIAL CHEMICAL VAPOR DEPOSITION (CVD) REACTOR						
024	EP	PCT	10765064.0	2419306		Published
European Patent Convention						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Richardt Patentanwalt						
<u>Title:</u> HIGH EFFICIENCY EPITAXIAL CHEMICAL VAPOR DEPOSITION (CVD) REACTOR						
024	MY	PCT	PI2011004789			Pending
Malaysia						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Pintas IP Group						
<u>Title:</u> HIGH EFFICIENCY EPITAXIAL CHEMICAL VAPOR DEPOSITION (CVD) REACTOR						
<u>Client Reference:</u> SOL.211.05 WOEP						
<u>Agent Reference:</u> PT/A060/Hulsev/11						
<u>Attorneys:</u> JW IP						

Patent LisuStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
024	0	ORD	12/759,820	20100267245	8656860	Granted
			14-Apr-2010	21-Oct-2010	25-Feb-2014	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH EFFICIENCY EPITAXIAL CHEMICAL VAPOR DEPOSITION (CVD) REACTOR						
025	0	ORD	12/767,512	20100294356		Published
			26-Apr-2010	25-Nov-2010		
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: INTEGRATED 3-DIMENSIONAL AND PLANAR METALLIZATION STRUCTURE FOR THIN FILM SOLAR CELLS						
028	0	ORD	12/786,262	20110014742	8445314	Granted
			24-May-2010	20-Jan-2011	21-May-2013	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: METHOD OF CREATING REUSABLE TEMPLATE FOR DETACHABLE THIN FILM SUBSTRATE						
028	1	ORD	13/897,323	20130241038		Published
			01-Jan-1900	19-Sep-2013		
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: METHOD OF CREATING REUSABLE TEMPLATE FOR DETACHABLE THIN FILM SUBSTRATE						
029	CN	PCT	201080030023.7	102460716		Published
			05-May-2010	16-May-2012		
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: HIGH-PRODUCTIVITY POROUS SEMICONDUCTOR MANUFACTURING EQUIPMENT						
029	EP	PCT	10772799.2	2427914		Published
			05-May-2010	14-Mar-2012		
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: HIGH-PRODUCTIVITY POROUS SEMICONDUCTOR MANUFACTURING EQUIPMENT						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
029	JP	PCT	2012-509857			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: HIGH-PRODUCTIVITY POROUS SEMICONDUCTOR MANUFACTURING EQUIPMENT						
029	MY	PCT	P12011005354			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: HIGH-PRODUCTIVITY POROUS SEMICONDUCTOR MANUFACTURING EQUIPMENT						
029	0	ORD	12/774,667	20110030610		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH-PRODUCTIVITY POROUS SEMICONDUCTOR MANUFACTURING EQUIPMENT						
030	0	ORD	12/774,713	20100304522	8420435	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Ion implantation fabrication process for thin-film crystalline silicon solar cells						
030	1	ORD	13/688,062	20130330872		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Ion implantation fabrication process for thin-film crystalline silicon solar cells						
032	EP	PCT	10/781392.5	2436028		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: THREE-DIMENSIONAL THIN-FILM SEMICONDUCTOR SUBSTRATE WITH THROUGH-HOLES AND METHODS OF MANUFACTURING						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
032	MY	PCT	PI2011700177			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: THREE-DIMENSIONAL THIN-FILM SEMICONDUCTOR SUBSTRATE WITH THROUGH-HOLES AND METHODS OF MANUFACTURING						
032	0	ORD	12/791,842	20100300518	8551866	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: THREE-DIMENSIONAL THIN-FILM SEMICONDUCTOR SUBSTRATE WITH THROUGH-HOLES AND METHODS OF MANUFACTURING						
032	1	ORD	13/962,291	20130319520		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: THREE-DIMENSIONAL THIN-FILM SEMICONDUCTOR SUBSTRATE WITH THROUGH-HOLES AND METHODS OF MANUFACTURING						
034	EP1	PCT	10756809.9	2412029		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: Substrates for High-Efficiency Thin-Film Solar Cells Based on Crystalline Templates						
034	MY1	PCT	PI2011004548			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: Substrates for High-Efficiency Thin-Film Solar Cells Based on Crystalline Templates						
034	0	ORD	12/618,663	20100148319		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Substrates for High-Efficiency Thin-Film Solar Cells Based on Crystalline Templates						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
034	1	ORD	12/731,058	20100267186	8288195	Granted
			24-Mar-2010	21-Oct-2010	16-Oct-2012	
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Substrates for High-Efficiency Thin-Film Solar Cells Based on Crystalline Templates						
034	2	ORD	13/652,237	20130288418		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						

Title: Substrates for High-Efficiency Thin-Film Solar Cells Based on Crystalline Templates						
035	0	ORD	12/618,668	20100175752	8294026	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: High-efficiency thin-film solar cells						
035	1	ORD	13/657,745	20130284255		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						

Title: High-efficiency thin-film solar cells						
036	CN0	PCT	201080063494.8	102763226		Published
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THIN PLANAR SEMICONDUCTOR ABSORBERS						
036	CN1	PCT	201080063303.8	102763225		Published
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						

Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THIN PLANAR SEMICONDUCTOR ABSORBERS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: JQIP121117US						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING SEMICONDUCTOR WAFERS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: JQIP121118US						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
036	CN2	PCT	201080063496.7	102782889	201080063496	Granted
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THREE-DIMENSIONAL SEMICONDUCTOR ABSORBERS						
036	EP0	PCT	108367/10.3	2510551		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THIN PLANAR SEMICONDUCTOR ABSORBERS						
036	EP1	PCT	108367/23.6	2510552		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING SEMICONDUCTOR WAFERS						
036	EP2	PCT	108367/03.8	2510550		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THREE-DIMENSIONAL SEMICONDUCTOR ABSORBERS						
036	MY0	PCT	P120112700546			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THIN PLANAR SEMICONDUCTOR ABSORBERS						
036	MY1	PCT	P12012700547			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING SEMICONDUCTOR WAFERS						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
036	N0	PCT	13/057,104	20120305063		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THIN PLANAR SEMICONDUCTOR ABSORBERS						
036	N1	PCT	13/057,115	20130233378		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING SEMICONDUCTOR WAFERS						
036	N2	PCT	13/057,123	20130167915		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH-EFFICIENCY PHOTOVOLTAIC BACK-CONTACT SOLAR CELL STRUCTURES AND MANUFACTURING METHODS USING THREE-DIMENSIONAL SEMICONDUCTOR ABSORBERS						
037	CN	PCT	201080063771.5	102754199		Published
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: MOBILE VACUUM CARRIERS FOR THIN WAFER PROCESSING						
037	EP	PCT	10842566.1	2513960		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: MOBILE VACUUM CARRIERS FOR THIN WAFER PROCESSING						
037	N0	PCT	13/515,848	20130140838		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MOBILE VACUUM CARRIERS FOR THIN WAFER PROCESSING						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
038	CN	PCT	201080064953.4	102782827	102782827	Granted
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: MOBILE ELECTROSTATIC CARRIERS FOR THIN WAFER PROCESSING						
038	EP	PCT	10841770.0	2519967		Allowed
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: MOBILE ELECTROSTATIC CARRIERS FOR THIN WAFER PROCESSING						
038	N0	PCT	13/520_139	20130141833		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MOBILE ELECTROSTATIC CARRIERS FOR THIN WAFER PROCESSING						
041	CN	PCT	201180018589.2	102844883		Published
China (People's Republic)						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Jiaquan IP Law Firm						
Title: Double-sided reusable template for fabrication of semiconductor substrates for photovoltaic cell and microelectronics de						
041	EP	PCT	11742933.2	2534700		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: Double-sided reusable template for fabrication of semiconductor substrates for photovoltaic cell and microelectronics de						
041	0	ORD	13/026_239	20110256654	8241940	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Double-sided reusable template for fabrication of semiconductor substrates for photovoltaic cell and microelectronics de						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Patent Date	Status
041	1	ORD	13/554,103	20130171808			Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: Double-sided reusable template for fabrication of semiconductor substrates for photovoltaic cell and microelectronics de							
Attorneys: JW IP							
Client Reference:							
Agent Reference:							
European Patent Convention							
043		EP	11772838.6	2561558			Published
European Patent Convention							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name: Richardt Patentanwalt							
Title: PASSIVATION METHODS AND APPARATUS FOR ACHIEVING ULTRALOW SURFACE RECOMBINATION VELOCITIES FOR HIGH-EFFICIENCY SOLAR CEL							
Attorneys: JW IP							
Client Reference:							
Agent Reference: SOL.212.08 WO EP							
043		D	10-2013-7012059				Pending
Korea, Republic of							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name: Hana Intellectual Property Law							
Title: PASSIVATION METHODS AND APPARATUS FOR ACHIEVING ULTRALOW SURFACE RECOMBINATION VELOCITIES FOR HIGH-EFFICIENCY SOLAR CEL							
Attorneys: JW IP							
Client Reference:							
Agent Reference: 2013ip30629us							
043		KR	10-2012-7030770		10-1381305	28-Mar-2014	Granted
Korea, Republic of							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name: Hana Intellectual Property Law							
Title: PASSIVATION METHODS AND APPARATUS FOR ACHIEVING ULTRALOW SURFACE RECOMBINATION VELOCITIES FOR HIGH-EFFICIENCY SOLAR CEL							
Attorneys: JW IP							
Client Reference:							
Agent Reference: 2012ip31204us							
043		0	13/092,942	20110284068			Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: PASSIVATION METHODS AND APPARATUS FOR ACHIEVING ULTRALOW SURFACE RECOMBINATION VELOCITIES FOR HIGH-EFFICIENCY SOLAR CEL							
Attorneys: JW IP							
Client Reference:							
Agent Reference:							
045		2	13173566.4				Pending
European Patent Convention							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name: Richardt Patentanwalt							
Title: Laser processing for high-efficiency thin crystalline silicon solar cell fabrication							
Attorneys: JW IP							
Client Reference:							
Agent Reference: SOL.213.04 EP/1							

Patent LisvStatus (by Case Number)

Case Number	Country	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
045		EP	PCT	11787543.5	27-May-2011	2577750				Published
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> SOL.212.09 WO EP										
<u>Division Name:</u> <u>Agent Name:</u> Richardt Patentanwalt <u>Title:</u> Laser processing for high-efficiency thin crystalline silicon solar cell fabrication										
045		EP3	PCT	11853473.4	24-Jul-2013	2659518				Published
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> SOL.213.05 WO EP										
<u>Division Name:</u> <u>Agent Name:</u> Richardt Patentanwalt <u>Title:</u> Laser processing for high-efficiency thin crystalline silicon solar cell fabrication										
045		KR	PCT	10-2012-7033876	26-Dec-2012	10-1289787				Granted
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> 2012fp31267us										
<u>Division Name:</u> <u>Agent Name:</u> Hana Intellectual Property Law <u>Title:</u> Laser processing for high-efficiency thin crystalline silicon solar cell fabrication										
045		KR3	PCT	10-2013-7020198	30-Jul-2013	10-1384853				Granted
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> APC-13-0223										
<u>Division Name:</u> <u>Agent Name:</u> Muhann Patent & Law Firm <u>Title:</u> Laser processing for high-efficiency thin crystalline silicon solar cell fabrication										
045		MY3	PCT	P12013701141	28-Jun-2013					Pending
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> PT/4677/Solexel/13										
<u>Division Name:</u> <u>Agent Name:</u> Pintas IP Group <u>Title:</u> Laser processing for high-efficiency thin crystalline silicon solar cell fabrication										
045		0	ORD	13/118.295	27-May-2011	20120028399				Granted
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u> LASER PROCESSING FOR HIGH-EFFICIENCY THIN CRYSTALLINE SILICON SOLAR CELL FABRICATION										
<u>Division Name:</u> <u>Agent Name:</u>										

Wednesday, December 17, 2014

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Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Patent Date	Status
045	1	ORD	13/271,212	20120122272		17-May-2012	Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: HIGH-THROUGHPUT FLAT TOP LASER BEAM PROCESSING FOR BACK CONTACT SOLAR CELLS							
045	2	ORD	13/303,488	20130164883		27-Jun-2013	Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: LASER ANNEALING APPLICATIONS IN HIGH-EFFICIENCY SOLAR CELLS							
045	3	ORD	13/340,877	20120171804	8637340	28-Jan-2014	Granted
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: PATTERNING OF SILICON OXIDE LAYERS USING PULSED LASER ABLATION							
045	4	ORD	13/340,887	20120225515		06-Sep-2012	Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: LASER DOPING TECHNIQUES FOR HIGH-EFFICIENCY CRYSTALLINE SEMICONDUCTOR SOLAR CELLS							
045	5	ORD	13/340,903	20120178203		12-Jul-2012	Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: LASER ANNEALING FOR ALUMINUM DOPING AND FORMATION OF BACK-SURFACE FIELD IN SOLAR CELL CONTACTS							
045	6	ORD	13/846,230	20130217172		22-Aug-2013	Published
United States of America							
Owner Name: Solexel, Inc.							
Division Name:							
Agent Name:							
Title: LASER PROCESSING FOR HIGH-EFFICIENCY THIN CRYSTALLINE SILICON SOLAR CELL FABRICATION							

PATENT

REEL: 044782 FRAME: 0683

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
045	7	ORD	14/137,172	20-Dec-2013		Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: PATTERNING OF SILICON OXIDE LAYERS USING PULSED LASER ABLATION						
046	EP	PCT	11793204.6	2580775		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: HIGH PRODUCTIVITY THIN FILM DEPOSITION METHOD AND SYSTEM						
046	Div	Div	10-2013-7009928			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: HIGH PRODUCTIVITY THIN FILM DEPOSITION METHOD AND SYSTEM						
046	KR	PCT	10-2013-7000556		10-1369282	Granted
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: HIGH PRODUCTIVITY THIN FILM DEPOSITION METHOD AND SYSTEM						
046	0	ORD	13/157,250	20120085278		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH PRODUCTIVITY THIN FILM DEPOSITION METHOD AND SYSTEM						
047	EP	PCT	11871380.9	2601687		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: SOL_213.01 WO EP						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
047	EP1	PCT	12765891.2	2691990		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
047	KR	PCT	10-2013-7005704			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
047	KR1	PCT	10-2013-7028432			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Muhann Patent & Law Firm						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
047	MY	PCT	P12013700332			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
047	MY1	PCT	P12014700151			Pending
Malaysia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Pintas IP Group						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
047	0	ORD	13/204,626	20120103408		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: PT/4525/Hulse/13						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
047	1	ORD	13433,280	20130000715		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: BACKPLANE REINFORCEMENT AND INTERCONNECTS FOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: APPARATUS AND METHOD FOR REPEATEDLY FABRICATING THIN FILM SEMICONDUCTOR SUBSTRATES USING A TEMPLATE						
048	0	ORD	13209,390	20120125256		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: APPARATUS AND METHOD FOR REPEATEDLY FABRICATING THIN FILM SEMICONDUCTOR SUBSTRATES USING A TEMPLATE						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: APPARATUS AND METHOD FOR REPEATEDLY FABRICATING THIN FILM SEMICONDUCTOR SUBSTRATES USING A TEMPLATE						
049	EP	PCT	11827704.5	2619790		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
Attorneys: JW IP						
Client Reference:						
Agent Reference: SOL.213.02 WO EP						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
049	EP1	PCT	11876396.0	2652774		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
Attorneys: JW IP						
Client Reference:						
Agent Reference: SOL.213.03 WO EP						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
049	KR	PCT	10-2013-7010390	10-1347681		Granted
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
Attorneys: JW IP						
Client Reference:						
Agent Reference: 2013fp30465us						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
049	KR1	PCT	10-2013-7014255			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
049	0	ORD	13/244,466	20130180847		Allowed
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
049	1	ORD	13/288,721	20120145553	8906218	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
049	3	ORD	14/563,888			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: APPARATUS AND METHODS FOR UNIFORMLY FORMING POROUS SEMICONDUCTOR ON A SUBSTRATE						
057	EP	PCT	11856289.1	2659504		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: DEPOSITION SYSTEMS AND PROCESSES						
057	KR	PCT	10-2013-7020188		10-1368598	Granted
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Muhann Patent & Law Firm						
Title: DEPOSITION SYSTEMS AND PROCESSES						
057			30-Jul-2013		21-Feb-2014	
Attorneys: JW IP						
Client Reference:						
Agent Reference: SOL.213.06 WO EP						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
057	MY	PCT	PI2013701140			Pending
Malaysia Owner Name: Solexel, Inc. Attorneys: JW IP Division Name: Client Reference: Agent Reference: PT/4676/Solexel/13 Title: DEPOSITION SYSTEMS AND PROCESSES						
057	0	ORD	13/341,965	20120192789		Published
United States of America Owner Name: Solexel, Inc. Attorneys: JW IP Division Name: Client Reference: Agent Reference: Title: DEPOSITION SYSTEMS AND PROCESSES						
058	KR	PCT	10-2013-7020199		10-1384872	Granted
Korea, Republic of Owner Name: Solexel, Inc. Attorneys: JW IP Division Name: Client Reference: Agent Reference: APC-13-0225 Title: DEPOSITION SYSTEMS AND PROCESSES						
058	MY	PCT	PI2013701139			Pending
Malaysia Owner Name: Solexel, Inc. Attorneys: JW IP Division Name: Client Reference: Agent Reference: PT/4675/Solexel/13 Title: METHOD FOR RECONSTRUCTING A SEMICONDUCTOR TEMPLATE						
058	0	ORD	13/341,976	20120167819		Published
United States of America Owner Name: Solexel, Inc. Attorneys: JW IP Division Name: Client Reference: Agent Reference: Title: METHOD FOR RECONSTRUCTING A SEMICONDUCTOR TEMPLATE						
060	AU	PCT	2012258898			Pending
Australia Owner Name: Solexel, Inc. Attorneys: JW IP Division Name: Client Reference: Agent Reference: M50054463 Title: SELF-ACTIVATED FRONT SURFACE BIAS FOR A SOLAR CELL						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
060	EP	PCT	12790369.8	2710639		Published
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwälte						
Title: SELF-ACTIVATED FRONT SURFACE BIAS FOR A SOLAR CELL						
060	KR	PCT	10-2013-7033627		10-1449891	Granted
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Muhann Patent & Law Firm						
Title: SELF-ACTIVATED FRONT SURFACE BIAS FOR A SOLAR CELL						
060	0	ORD	13/476,955	20130125950		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SELF-ACTIVATED FRONT SURFACE BIAS FOR A SOLAR CELL						
061	KR	PCT	10-2013-7034083			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: SPATIALLY SELECTIVE LASER ANNEALING APPLICATIONS IN HIGH-EFFICIENCY SOLAR CELLS						
061	0	ORD	13/477,008	20130130430		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SPATIALLY SELECTIVE LASER ANNEALING APPLICATIONS IN HIGH-EFFICIENCY SOLAR CELLS						
062	KR	PCT	10-2013-7034593		10-1389030	Granted
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Hana Intellectual Property Law						
Title: METHOD AND APPARATUS FOR RECONDITIONING A CARRIER WAFER FOR REUSE						
Agent Reference: 2013-FP-31349US						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
062	MY	PCT	PI2013702563			Pending

Owner Name: Solexel, Inc.

Attorneys: JW IP

Division Name:

Client Reference:

Agent Name: Pintas IP Group

Agent Reference: PT/4844/Solexel

Title: METHOD AND APPARATUS FOR RECONDITIONING A CARRIER WAFER FOR REUSE

062	0	ORD	13/482,963	20130137244		Published
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Owner Name: Solexel, Inc.

Attorneys: JW IP

Division Name:

Client Reference:

Agent Name:

Agent Reference:

Title: METHOD AND APPARATUS FOR RECONDITIONING A CARRIER WAFER FOR REUSE

063	EP	PCT	12/93962.7	2715797		Published
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Owner Name: Solexel, Inc.

Attorneys: JW IP

Division Name:

Client Reference:

Agent Name: Richardt Patentanwälte

Agent Reference: SOL_213_09 WO EP

Title: ION IMPLANTATION AND ANNEALING FOR HIGH EFFICIENCY BACK-CONTACT BACK-JUNCTION SOLAR CELLS

063	KR	PCT	10-2013-7034723		10-1396027	Granted
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Owner Name: Solexel, Inc.

Attorneys: JW IP

Division Name:

Client Reference:

Agent Name: Muhann Patent & Law Firm

Agent Reference: APC-13-0354

Title: ION IMPLANTATION AND ANNEALING FOR HIGH EFFICIENCY BACK-CONTACT BACK-JUNCTION SOLAR CELLS

063	0	ORD	13/483,024	20130171767		Allowed
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Owner Name: Solexel, Inc.

Attorneys: JW IP

Division Name:

Client Reference:

Agent Name:

Agent Reference:

Title: ION IMPLANTATION AND ANNEALING FOR HIGH EFFICIENCY BACK-CONTACT BACK-JUNCTION SOLAR CELLS

068	AU	PCT	2012294932			Pending
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Owner Name: Solexel, Inc.

Attorneys: JW IP

Division Name:

Client Reference:

Agent Name: Freehills Patent Attorneys

Agent Reference: M50059653

Title: HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
068	CN	PCT	201280049551.6	103918088		Published
China (People's Republic)						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Jiaquan IP Law Firm						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						
068	EP	PCT	12822670.1	2742536		Published
European Patent Convention						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Richardt Patentanwalt						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						
068	JP	PCT	2014525003			Pending
Japan						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Nakamura & Partners						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						
068	KR	PCT	10-2014-7006376			Pending
Korea, Republic of						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Muhann Patent & Law Firm						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						
068	MY	PCT	PI.2014700259			Pending
Malaysia						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Pintas IP Group						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						
068	N	PCT	13/807.631			Pending
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						
<u>Attorneys:</u> JW IP						
<u>Client Reference:</u>						
<u>Agent Reference:</u>						
<u>Client Reference:</u> APC-14-0133						
<u>Agent Reference:</u> PT/4884/SOLEXEL/14						
<u>Attorneys:</u> JW IP						
<u>Client Reference:</u>						
<u>Agent Reference:</u>						
<u>Client Reference:</u>						
<u>Agent Reference:</u>						
<u>Title:</u> HIGH-EFFICIENCY SOLAR PHOTOVOLTAIC CELLS AND MODULES USING THIN CRYSTALLINE SEMICONDUCTOR ABSORBERS						

Wednesday, December 17, 2014

Patent LisvStatus (by Case Number)

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Case Number	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
069	AU	PCT	2012340098	20-Nov-2012					Pending
Australia									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u> Freehills Patent Attorneys									
<u>Title:</u> SMART PHOTOVOLTAIC CELLS AND MODULES									
069	CN	PCT	201280067268.6	16-Jul-2014	104106143	15-Oct-2014			Published
China (People's Republic)									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u> Jiaquan IP Law Firm									
<u>Title:</u> SMART PHOTOVOLTAIC CELLS AND MODULES									
069	EP	PCT	12850632.6	13-Jun-2014	2780952	24-Sep-2014			Published
European Patent Convention									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u> Richardt Patentanwälte									
<u>Title:</u> SMART PHOTOVOLTAIC CELLS AND MODULES									
069	JP	PCT	2014542579	20-Nov-2012					Pending
Japan									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u> Nakamura & Partners									
<u>Title:</u> SMART PHOTOVOLTAIC CELLS AND MODULES									
069	KR	PCT	10-2014-7016608	18-Jun-2014					Pending
Korea, Republic of									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u> Muhann Patent & Law Firm									
<u>Title:</u> SMART PHOTOVOLTAIC CELLS AND MODULES									
069	MY	PCT	PI 2014700259	20-May-2014					Pending
Malaysia									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u> Pintas IP Group									
<u>Title:</u> SMART PHOTOVOLTAIC CELLS AND MODULES									
<u>Attorneys:</u> JW IP									
<u>Client Reference:</u>									
<u>Agent Reference:</u> PT/5011/SOLEXEL/14									

PATENT

REEL: 034782 FRAME: 0000

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
069	1	ORD	PCT/US14/34057	WO2014169295		Published
			14-Apr-2014	16-Oct-2014		
			Owner Name: Solexel, Inc. Division Name: Agent Name:			
			Attorneys: JW IP Client Reference: Agent Reference:			
069	0	ORD	13/682,674	20140060610		Published
			20-Nov-2012	06-Mar-2014		
			Title: SMART PHOTOVOLTAIC CELLS AND MODULES Owner Name: Solexel, Inc. Division Name: Agent Name:			
			Attorneys: JW IP Client Reference: Agent Reference:			

069 1 ORD 14/252,776 14-Apr-2014
 United States of America
 Owner Name: Solexel, Inc.
 Division Name:
 Agent Name:
 Title: SMART PHOTOVOLTAIC CELLS AND MODULES
 Attorneys: JW IP
 Client Reference:
 Agent Reference:
 Pending

070 AU PCT 2012358174 22-Jul-2014
 Australia
 Owner Name: Solexel, Inc.
 Division Name:
 Agent Name: Freehills Patent Attorneys
 Title: HIGH PRODUCTIVITY SPRAY PROCESSING FOR SEMICONDUCTOR METALLIZATION AND INTERCONNECTS
 Attorneys: JW IP
 Client Reference: M50072138
 Agent Reference:
 Pending

070 JP PCT XXXX
 Japan
 Owner Name: Solexel, Inc.
 Division Name:
 Agent Name: Nakamura & Partners
 Title: HIGH PRODUCTIVITY SPRAY PROCESSING FOR SEMICONDUCTOR METALLIZATION AND INTERCONNECTS
 Attorneys: JW IP
 Client Reference: XIV - 1230
 Agent Reference:
 Pending

070 KR PCT 10-2014-7020690 23-Jul-2014
 Korea, Republic of
 Owner Name: Solexel, Inc.
 Division Name:
 Agent Name: Hana Intellectual Property Law
 Title: HIGH PRODUCTIVITY SPRAY PROCESSING FOR SEMICONDUCTOR METALLIZATION AND INTERCONNECTS
 Attorneys: JW IP
 Client Reference:
 Agent Reference: 2014-FP-40655US
 Pending

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
070	0	ORD	13/726,169	20140033971		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH PRODUCTIVITY SPRAY PROCESSING FOR SEMICONDUCTOR METALLIZATION AND INTERCONNECTS						
071	AU	PCT	2012362505			Pending
Australia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Freehills Patent Attorneys						
Title: SYSTEMS AND METHODS FOR ENHANCED LIGHT TRAPPING IN SOLAR CELLS						
071	JP	PCT	XXXX			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: SYSTEMS AND METHODS FOR ENHANCED LIGHT TRAPPING IN SOLAR CELLS						
071	KR	PCT	10-2014-7020992			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Muhann Patent & Law Firm						
Title: SYSTEMS AND METHODS FOR ENHANCED LIGHT TRAPPING IN SOLAR CELLS						
071	0	ORD	13/727,393	20140017846		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SYSTEMS AND METHODS FOR ENHANCED LIGHT TRAPPING IN SOLAR CELLS						
072	AU	PCT	2014208227			Pending
Australia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Freehills Patent Attorneys						
Title: MULTI-LEVEL SOLAR CELL METALLIZATION						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
072	JP	PCT	XXXX			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: MULTI-LEVEL SOLAR CELL METALLIZATION						
072	0	ORD	13/731,112	20140318611		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MULTI-LEVEL SOLAR CELL METALLIZATION						
073	AU	PCT	2013222069			Pending
Australia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Freehills Patent Attorneys						
Title: SYSTEMS AND METHODS FOR LASER SPLITTING AND DEVICE LAYER TRANSFER						
073	EP	PCT	13752284.3			Pending
European Patent Convention						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Richardt Patentanwalt						
Title: SYSTEMS AND METHODS FOR LASER SPLITTING AND DEVICE LAYER TRANSFER						
073	JP	PCT	XXXX			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: SYSTEMS AND METHODS FOR LASER SPLITTING AND DEVICE LAYER TRANSFER						
073	KR	PCT	10-2014-7027309			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Muhann Patent & Law Firm						
Title: SYSTEMS AND METHODS FOR LASER SPLITTING AND DEVICE LAYER TRANSFER						
073						
Attorneys: JW IP						
Client Reference:						
Agent Reference: X1V - 1684						
Attorneys: JW IP						
Client Reference:						
Agent Reference: APC-14-0252						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
073	0	ORD	13/778,047	20140038392		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SYSTEMS AND METHODS FOR LASER SPLITTING AND DEVICE LAYER TRANSFER						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
075	AU	PCT	2013225860			Pending
Australia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Freehills Patent Attorneys						
Title: STRUCTURES AND METHODS FOR HIGH EFFICIENCY COMPOUND SEMICONDUCTOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: M50077409						
075	JP	PCT	XXXX			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: STRUCTURES AND METHODS FOR HIGH EFFICIENCY COMPOUND SEMICONDUCTOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: X1V - 1685						
075	KR	PCT	10-2014-7027472			Pending
Korea, Republic of						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Muhann Patent & Law Firm						
Title: STRUCTURES AND METHODS FOR HIGH EFFICIENCY COMPOUND SEMICONDUCTOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference: APC-14-0253						
075	0	ORD	13/781,708	20130337601		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: STRUCTURES AND METHODS FOR HIGH EFFICIENCY COMPOUND SEMICONDUCTOR SOLAR CELLS						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
077	AU	PCT	2013237911			Pending
Australia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Freehills Patent Attorneys						
Title: BACK CONTACT SOLAR CELLS USING ALUMINUM-BASED ALLOY METALLIZATION						
Attorneys: JW IP						
Client Reference:						
Agent Reference: M50079093						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
077	KR	PCT	10-2014-7030233			Pending
Korea, Republic of						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Muhann Patent & Law Firm						
<u>Title:</u> BACK CONTACT SOLAR CELLS USING ALUMINUM-BASED ALLOY METALLIZATION						
077	0	ORD	13/853,031			Pending
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> BACK CONTACT SOLAR CELLS USING ALUMINUM-BASED ALLOY METALLIZATION						
078	AU	PCT	2013237992			Pending
Australia						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Freehills Patent Attorneys						
<u>Title:</u> END POINT DETECTION FOR BACK CONTACT SOLAR CELL LASER VIA DRILLING						
078	0	ORD	13/852,966	20130288425		Published
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> END POINT DETECTION FOR BACK CONTACT SOLAR CELL LASER VIA DRILLING						
079	AU	PCT	2013289151			Pending
Australia						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Freehills Patent Attorneys						
<u>Title:</u> HIGH EFFICIENCY SOLAR CELL STRUCTURES AND MANUFACTURING METHODS						
079	JP	PCT	XXXX			Pending
Japan						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Nakamura & Partners						
<u>Title:</u> HIGH EFFICIENCY SOLAR CELL STRUCTURES AND MANUFACTURING METHODS						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
079	0	ORD	13/855,657	20130213469		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: HIGH EFFICIENCY SOLAR CELL STRUCTURES AND MANUFACTURING METHODS						
080	0	ORD	13/866,990	20140146854		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: TEMPERATURE CALIBRATION AND CONTROL FOR SEMICONDUCTOR REACTORS						
081	JP	PCT	XXXX			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Nakamura & Partners						
Title: RESISTANCE COMPONENT EXTRACTION FOR BACK CONTACT BACK JUNCTION SOLAR CELLS						
081	0	ORD	13/868,987	20140147944	8828784	Granted
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: RESISTANCE COMPONENT EXTRACTION FOR BACK CONTACT BACK JUNCTION SOLAR CELLS						
081	1	ORD	14/479,540			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: RESISTANCE COMPONENT EXTRACTION FOR BACK CONTACT BACK JUNCTION SOLAR CELLS						
082	AU	PCT	2013272248			Pending
Australia						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name: Freehills Patent Attorneys						
Title: MANUFACTURING METHODS AND STRUCTURES FOR LARGE-AREA THIN-FILM SOLAR CELLS AND OTHER SEMICONDUCTOR DEVICES						

Wednesday, December 17, 2014

Patent LisvStatus (by Case Number)

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Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
082	0	ORD	13,869,928	20130228221		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW MK						
Client Reference:						
Agent Reference:						
Title: MANUFACTURING METHODS AND STRUCTURES FOR LARGE-AREA THIN-FILM SOLAR CELLS AND OTHER SEMICONDUCTOR DEVICES						
084	JP	PCT	XXXX			Pending
Japan						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys:						
Client Reference:						
Agent Reference:						
Title: STRUCTURES AND METHODS OF FORMATION OF CONTIGUOUS AND NON-CONTIGUOUS BASE REGIONS FOR HIGH EFFICIENCY BACK-CONTACT SOLAR CELLS						
084	0	ORD	PCT/US13/43193	WO2013181298		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys:						
Client Reference:						
Agent Reference:						
Title: STRUCTURES AND METHODS OF FORMATION OF CONTIGUOUS AND NON-CONTIGUOUS BASE REGIONS FOR HIGH EFFICIENCY BACK-CONTACT SOLAR CELLS						
084	0	ORD	13,905,113	2014/0158193		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys:						
Client Reference:						
Agent Reference:						
Title: STRUCTURES AND METHODS OF FORMATION OF CONTIGUOUS AND NON-CONTIGUOUS BASE REGIONS FOR HIGH EFFICIENCY BACK-CONTACT SOLAR CELLS						
087	0	ORD	PCT/US13/65316	WO2014062850		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys:						
Client Reference:						
Agent Reference:						
Title: MONOLITHICALLY-INTEGRATED BYPASS SWITCH (MIBS) FOR DISTRIBUTED SHADE MANAGEMENT AND ENHANCED ENERGY YIELD IN PHOTOVOLTAIC MODULES						
087	0	ORD	14/055,813	20140102531		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys:						
Client Reference:						
Agent Reference:						
Title: MONOLITHICALLY-INTEGRATED BYPASS SWITCH (MIBS) FOR DISTRIBUTED SHADE MANAGEMENT AND ENHANCED ENERGY YIELD IN PHOTOVOLTAIC MODULES						

PATENT

REEL: 034782 FRAME: 0009

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
088	0	ORD	PCT/US13/68859	WO2014071417		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MONOLITHIC ISLED (TILED) SOLAR CELL (CELL) FOR LOW-COST HIGH-PERFORMANCE PHOTOVOLTAICS MODULES						
088	0	ORD	14/072,759	20140326295		Published
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MONOLITHIC ISLED (TILED) SOLAR CELL (CELL) FOR LOW-COST HIGH-PERFORMANCE PHOTOVOLTAICS MODULES						
093	0	ORD	PCT/US14/16140	WO2014127067		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MONOLITHICALLY ISLED BACK CONTACT BACK JUNCTION SOLAR CELLS USING BULK WAFERS						
093	0	ORD	14/179,526			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: MONOLITHICALLY ISLED BACK CONTACT BACK JUNCTION SOLAR CELLS USING BULK WAFERS						
101	0	ORD	PCT/US14/34054	WO2014169292		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: EMBEDDED POWER ELECTRONICS FOR SMART PHOTOVOLTAIC MODULES						
101	0	ORD	14/252,750			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: EMBEDDED POWER ELECTRONICS FOR SMART PHOTOVOLTAIC MODULES						

PATENT

REEL: 034782 FRAME: 0000

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
102	0	ORD	PCT/US14/35209	WO2014176380		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Bus-bars and Metal 2 Exclusions for 2-level Metallized Solar Cells						
102	0	ORD	14/260,272			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: Bus-bars and Metal 2 Exclusions for 2-level Metallized Solar Cells						
103	HM	ORD	PCT/US14/35965	WO2014179368		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: DAMAGE FREE LASER PATTERNING OF TRANSPARENT LAYERS FOR FORMING DOPED REGIONS ON A SOLAR CELL SUBSTRATE						
103	LA	ORD	PCT/US14/35961	WO2014179366		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: ANNEALING FOR DAMAGE FREE LASER PROCESSING FOR HIGH EFFICIENCY SOLAR CELLS						
103	HM	ORD	14/265,351			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: DAMAGE FREE LASER PATTERNING OF TRANSPARENT LAYERS FOR FORMING DOPED REGIONS ON A SOLAR CELL SUBSTRATE						
103	LA	ORD	14/265,331			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: ANNEALING FOR DAMAGE FREE LASER PROCESSING FOR HIGH EFFICIENCY SOLAR CELLS						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
104	0	ORD	PCT/US14/37746	WO2014186300		Published
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SOLAR PHOTOVOLTAIC BLINDS AND CURTAINS FOR RESIDENTIAL AND COMMERCIAL BUILDINGS						
104	0	ORD	14/275,869			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SOLAR PHOTOVOLTAIC BLINDS AND CURTAINS FOR RESIDENTIAL AND COMMERCIAL BUILDINGS						
106	0	ORD	PCT/US14/45169			Pending
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: ENHANCED-THROUGHPUT THERMAL PROCESSING METHODS FOR PRODUCING HIGH-EFFICIENCY CRYSTALLINE SILICON SOLAR CELLS						
106	0	ORD	14/321,802			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: ENHANCED-THROUGHPUT THERMAL PROCESSING METHODS FOR PRODUCING HIGH-EFFICIENCY CRYSTALLINE SILICON SOLAR CELLS						
107	0	ORD	PCT/US14/45630			Pending
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SURFACE PASSIVATION OF HIGH-EFFICIENCY CRYSTALLINE SILICON SOLAR CELLS						
107	0	ORD	14/325,356			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Title: SURFACE PASSIVATION OF HIGH-EFFICIENCY CRYSTALLINE SILICON SOLAR CELLS						

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Patent Date		
108	0	ORD	PCT/US14/5336			Pending
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: THIN FILM SOLAR CELL LAMINATION STACK FOR HIGH VOLUME MANUFACTURING						
108	0	ORD	14/326,461			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: THIN FILM SOLAR CELL LAMINATION STACK FOR HIGH VOLUME MANUFACTURING						
112	0	ORD	PCT/US14/8989			Pending
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: Flexible Backplane Materials and Related Lamination Processes for Backplane-Attached High-Efficiency Solar Cells and Modules						
114	0	ORD	PCT/US14/53759			Pending
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: Contiguous-Backplane-Attached Photovoltaic Module Structures and Manufacturing Methods Using Monolithic Cell-Level and Module-Level Metallization						
114	0	ORD	14/475,566			Pending
United States of America						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: Contiguous-Backplane-Attached Photovoltaic Module Structures and Manufacturing Methods Using Monolithic Cell-Level and Module-Level Metallization						
115	0	ORD	PCT/US14/55964			Pending
Patent Cooperation Treaty						
Owner Name: Solexel, Inc.						
Division Name:						
Agent Name:						
Attorneys: JW IP						
Client Reference:						
Agent Reference:						
Title: DAMAGE FREE LASER PATTERNING OF ALUMINUM OXIDE FOR SOLAR CELL APPLICATIONS						

Patent LisuStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Patent No.	Patent Date	Status
115	0	ORD	14/438,263	16-Sep-2014				Pending
United States of America								
Owner Name: Solexel, Inc.								
Attorneys: JW IP								
Division Name:								
Client Reference:								
Agent Name:								
Agent Reference:								
Title: DAMAGE FREE LASER PATTERNING OF ALUMINUM OXIDE FOR SOLAR CELL APPLICATIONS								
116	0	ORD	14/493,341	22-Sep-2014				Pending
United States of America								
Owner Name: Solexel, Inc.								
Attorneys: JW IP								
Division Name:								
Client Reference:								
Agent Name:								
Agent Reference:								
Title: FABRICATION METHODS FOR MONOLITHICALLY SLED BACK CONTACT BACK JUNCTION SOLAR CELLS								
116	1	ORD	14/493,335	22-Sep-2014				Pending
United States of America								
Owner Name: Solexel, Inc.								
Attorneys: JW IP								
Division Name:								
Client Reference:								
Agent Name:								
Agent Reference:								
Title: FABRICATION METHODS FOR BACK CONTACT SOLAR CELLS								
117	0	ORD	14/495,883	24-Sep-2014				Pending
United States of America								
Owner Name: Solexel, Inc.								
Attorneys: JW IP								
Division Name:								
Client Reference:								
Agent Name:								
Agent Reference:								
Title: PHOTOVOLTAIC MONOLITHIC SOLAR MODULE CONNECTION AND FABRICATION METHODS								
121	0	ORD	PCT/US14/65091	11-Nov-2014				Pending
Patent Cooperation Treaty								
Owner Name: Solexel, Inc.								
Attorneys: IP JW								
Division Name:								
Client Reference:								
Agent Name:								
Agent Reference:								
Title: DIELECTRIC-PASSIVATED METAL INSULATOR PHOTOVOLTAIC SOLAR CELLS								
121	0	ORD	14/538760	11-Nov-2014				Pending
United States of America								
Owner Name: Solexel, Inc.								
Attorneys: IP JW								
Division Name:								
Client Reference:								
Agent Name:								
Agent Reference:								
Title: DIELECTRIC-PASSIVATED METAL INSULATOR PHOTOVOLTAIC SOLAR CELLS								

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
122	0	ORD	PCT/US14/65312	12-Nov-2014		Pending
Patent Cooperation Treaty Owner Name: Solexel, Inc. Division Name: Agent Name:						
Title: Metal Foil Metallization for Backplane-Attached Solar Cells and Modules United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						
122	0	ORD	14/539978	12-Nov-2014		Pending
Title: Metal Foil Metallization for Backplane-Attached Solar Cells and Modules United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						
123	0	ORD	PCT/US14/67946	01-Dec-2014		Pending
Patent Cooperation Treaty Owner Name: Solexel, Inc. Division Name: Agent Name:						
Title: Metal Foil Metallization for Backplane-Attached Solar Cells and Modules United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						
123	0	ORD	14/557,096	01-Dec-2014		Pending
Title: Al2O3 Passivation for Back Contact Back Junction Solar Cells United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						
124	0	ORD	PCT/US14/68242	02-Dec-2014		Pending
Patent Cooperation Treaty Owner Name: Solexel, Inc. Division Name: Agent Name:						
Title: Al2O3 Passivation for Back Contact Back Junction Solar Cells United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						
124	0	ORD	14/558,707	02-Dec-2014		Pending
Title: Insulator and Wide Bandgap Semiconductor Based Passivated Contacts United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						
124	0	ORD	14/558,707	02-Dec-2014		Pending
Title: Insulator and Wide Bandgap Semiconductor Based Passivated Contacts United States of America Owner Name: Solexel, Inc. Division Name: Agent Name:						

PATENT

REEL: 034782 FRAME: 0065

Patent LisuStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
125	P	PRO	61/917,919	18-Dec-2013					Pending
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>									
126	P	PRO	61/920,209	23-Dec-2013					Pending
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Insulator and Wide Bandgap Semiconductor Based Passivated Contacts <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>									
127	P	PRO	61/920,271	23-Dec-2013					Pending
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Amorphous Silicon Passivated (ASP) Contacts for Back Contact Back Junction Solar Cells <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>									
128	P	PRO	61/926,852	13-Jan-2014					Pending
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> STRUCTURES AND METHODS OF FORMING SELF ALIGNED CONTACTS FOR HIGH EFFICIENCY BACK CONTACTED SOLAR CELLS <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>									
129	P	PRO	61/929,097	19-Jan-2014					Pending
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> Structures and Methods for Back-Contact Solar Cells Using Discontinuous Emitter and Base Islands <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>									
130	P	PRO	61/941,995	19-Feb-2014					Pending
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> TRENCH ISOLATION STRUCTURES AND MANUFACTURING PROCESS METHODS FOR MONOLITHICALLY ISLED SOLAR PHOTOVOLTAIC CELLS AND MODULES <u>Attorneys:</u> JW IP <u>Client Reference:</u> <u>Agent Reference:</u>									
United States of America <u>Owner Name:</u> Solexel, Inc. <u>Division Name:</u> <u>Agent Name:</u> <u>Title:</u> High-Efficiency Backplane-Attached Solar Cells Using High-Conductivity Metal-Foil Metallization									

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
131	P	PRO	61/943,332	22-Feb-2014					Pending
United States of America									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u>									
<u>Title:</u> Smart Photovoltaic Modules Using Embedded Distributed MPPT Power Optimizers									
Attorneys: IP JW									
<u>Client Reference:</u>									
<u>Agent Reference:</u>									
132	P	PRO	61/954,116	26-Feb-2014					Pending
United States of America									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u>									
<u>Title:</u> STRUCTURES AND METHODS OF FORMING SELF ALIGNED CONTACTS FOR HIGH EFFICIENCY BACK CONTACTED SOLAR CELLS									
Attorneys: IP JW									
<u>Client Reference:</u>									
<u>Agent Reference:</u>									
133	P	PRO	61/945,126	26-Feb-2014					Pending
United States of America									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u>									
<u>Title:</u> Al2O3 Passivation for Back Contact Back Junction Solar Cells									
Attorneys: JW IP									
<u>Client Reference:</u>									
<u>Agent Reference:</u>									
134	P	PRO	62/010,980	11-Jun-2014					Pending
United States of America									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u>									
<u>Title:</u> Monolithic Module Cell to Cell Interconnection for Improved Fault Tolerance									
Attorneys: IP JW									
<u>Client Reference:</u>									
<u>Agent Reference:</u>									
135	P	PRO	62/032,414	01-Aug-2014					Pending
United States of America									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u>									
<u>Title:</u> Front Passivation Stabilization Using Photo-Chemical Anneal for Solar Cells									
Attorneys: IP JW									
<u>Client Reference:</u>									
<u>Agent Reference:</u>									
136	P	PRO	62/033,091	04-Aug-2014					Pending
United States of America									
<u>Owner Name:</u> Solexel, Inc.									
<u>Division Name:</u>									
<u>Agent Name:</u>									
<u>Title:</u> Impact Resistant Solar Cells									
Attorneys: IP JW									
<u>Client Reference:</u>									
<u>Agent Reference:</u>									

Patent LisuStatus (by Case Number)

Case Number	Country	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
137	United States of America	P	PRO	62/036,609	12-Aug-2014					Pending
<u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JP JW <u>Division Name:</u> <u>Client Reference:</u> <u>Agent Name:</u> <u>Agent Reference:</u>										
138	United States of America	P	PRO	62/037,094	13-Aug-2014					Pending
<u>Title:</u> AMORPHOUS SILICON BASED LASER DOPED HIGH PERFORMANCE SOLAR CELL STRUCTURES AND METHODS <u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JP JW <u>Division Name:</u> <u>Client Reference:</u> <u>Agent Name:</u> <u>Agent Reference:</u>										
139	United States of America	P	PRO	62/038,787	18-Aug-2014					Pending
<u>Title:</u> Rear Wide Band Gap Passivated (RGP) PERC Cell Architecture <u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JP JW <u>Division Name:</u> <u>Client Reference:</u> <u>Agent Name:</u> <u>Agent Reference:</u>										
140	United States of America	P	PRO	62/044,312	31-Aug-2014					Pending
<u>Title:</u> Macro Isled Cell and Monolithic Module Metallization <u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JP JW <u>Division Name:</u> <u>Client Reference:</u> <u>Agent Name:</u> <u>Agent Reference:</u>										
141	United States of America	P	PRO	62/044,997	02-Sep-2014					Pending
<u>Title:</u> Laser Doping Based Efficient Manufacturing Methods for Making High Efficiency Back Contacted Back Junction Solar Cells <u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JP JW <u>Division Name:</u> <u>Client Reference:</u> <u>Agent Name:</u> <u>Agent Reference:</u>										
142	United States of America	P	PRO	62/077,150	07-Nov-2014					Pending
<u>Title:</u> Multiple Metal 1 Busbar Solutions For Solar Cells <u>Owner Name:</u> Solexel, Inc. <u>Attorneys:</u> JW JP <u>Division Name:</u> <u>Client Reference:</u> <u>Agent Name:</u> <u>Agent Reference:</u>										
<u>Title:</u> In-Line Test and Sort for Photovoltaic Monolithic Modules										

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
143	P	PRO	62077878	10-Nov-2014		Pending
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> Impact Resistant Lightweight Module Design						
JD Dainippon	2	ORD	20121505374	103132121		Published
China (People's Republic)						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> ANODIZING APPARATUS, AN ANODIZING SYSTEM HAVING THE SAME, AND A SEMICONDUCTOR WAFER						
JD Dainippon	1A	ORD	20100269416	2012119570		Published
Japan						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> ANODIZING APPARATUS						
JD Dainippon	1B	ORD	20100269417	2012119571		Published
Japan						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> ANODIZING APPARATUS						
JD Dainippon	2	ORD	20110262421	2013112880		Published
Japan						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u>						
<u>Title:</u> ANODIZING APPARATUS, AN ANODIZING SYSTEM HAVING THE SAME, AND A SEMICONDUCTOR WAFER						
JD Dainippon	1	ORD	13/310,083	20120138455		Allowed
United States of America						
<u>Owner Name:</u> Solexel, Inc.						
<u>Division Name:</u>						
<u>Agent Name:</u> Sugitani Patent Office						
<u>Title:</u> ANODIZING APPARATUS						

Wednesday, December 17, 2014

Patent Lis/Status (by Case Number)

Page 46 of 46

Case Number	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
JD Dainippou	2	ORD	13/688,645	29-Nov-2012	20130154061	20-Jun-2013			Published

Owner Name: Solexel, Inc.

Division Name:

Agent Name:

Attorneys: JW IP

Client Reference:

Agent Reference:

Title: ANODIZING APPARATUS, AN ANODIZING SYSTEM HAVING THE SAME AND A SEMICONDUCTOR WAFER

PATENT

REEL: 034782 FRAME: 0050

**Schedule B to the
IP Security Agreement**

TRADEMARKS

(See Attached)

Patent LisvStatus (by Case Number)

Case Number	Country	Sub Case	Case Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Status
TM FLXSMT	United States of America		TMK	85802380	13-Dec-2012					Pending
Owner Name: Solexel, Inc. Division Name: Agent Name:										
Attorneys: Client Reference: Agent Reference:										
TM ICELL	United States of America		TMK	85802388	13-Dec-2012					Pending
Owner Name: Solexel, Inc. Division Name: Agent Name:										
Title: ICELL, word mark Attorneys: Client Reference: Agent Reference:										
TM SOLT	Canada		TMK	1699536	24-Oct-2014					Pending
Owner Name: Solexel, Inc. Division Name: Agent Name:										
Title: SOLEXEL, word mark Attorneys: Client Reference: Agent Reference:										
TM SOLT	China (People's Republic)	CN1	TMK	6706659	07-May-2008			6706659	06-Dec-2014	Registered
Owner Name: Solexel, Inc. Division Name: Agent Name:										
Title: SOLEXEL, word mark Attorneys: Client Reference: Agent Reference:										
TM SOLT	China (People's Republic)	CN2	TMK	6706660	07-May-2008			6706660	07-Sep-2010	Registered
Owner Name: Solexel, Inc. Division Name: Agent Name:										
Title: SOLEXEL, word mark Attorneys: Client Reference: Agent Reference:										
TM SOLT	European Patent Convention	EU	TMK	006871412	28-Apr-2008			006871412	02-Apr-2009	Registered
Owner Name: Solexel, Inc. Division Name: Agent Name:										
Title: SOLEXEL, word mark Attorneys: Client Reference: Agent Reference:										

Patent LisvStatus (by Case Number)

Case Number	Sub Case	Case Type	Application No.	Publication No.	Patent No.	Status
Country			Filing Date	Publication Date	Patent Date	
TM SOLT Hong Kong	HK	TMK	301107080 30-Apr-2008		301107080 30-Apr-2008	Registered
<p>Owner Name: Solexel, Inc. Division Name: Agent Name:</p> <p>Attorneys: Client Reference: Agent Reference:</p>						
TM SOLT India	IN	TMK	1682328 30-Apr-2008		1682328 31-Mar-2010	Registered
<p>Owner Name: Solexel, Inc. Division Name: Agent Name:</p> <p>Attorneys: Client Reference: Agent Reference:</p>						
TM SOLT Japan	JP	TMK	2008036575 13-May-2008		5150159 11-Jul-2008	Registered
<p>Owner Name: Solexel, Inc. Division Name: Agent Name:</p> <p>Attorneys: Client Reference: Agent Reference:</p>						
TM SOLT Korea, Republic of	KR	TMK	4520080002834 01-Jul-2008		450029060 17-Sep-2009	Registered
<p>Owner Name: Solexel, Inc. Division Name: Agent Name:</p> <p>Attorneys: Client Reference: Agent Reference:</p>						
TM SOLT Switzerland	SW	TMK	555062008 28-Apr-2008		579444 21-Nov-2008	Registered
<p>Owner Name: Solexel, Inc. Division Name: Agent Name:</p> <p>Attorneys: Client Reference: Agent Reference:</p>						
TM SOLT United States of America	US	TMK	77335628 21-Nov-2007		4218007	Registered
<p>Owner Name: Solexel, Inc. Division Name: Agent Name:</p> <p>Attorneys: Client Reference: Agent Reference:</p>						

**Schedule C to the
IP Security Agreement**

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None.

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