

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4522955

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	RECORDATION OF FORECLOSURE OF PATENT PROPERTIES	
CONVEYING PARTY DATA		
Name		Execution Date
OB REALTY, LLC		05/12/2017
RECEIVING PARTY DATA		
Name:	OB REALTY, LLC	
Street Address:	19900 MACARTHUR BLVD, 12TH FLOOR	
City:	IRVINE	
State/Country:	CALIFORNIA	
Postal Code:	92647	
PROPERTY NUMBERS Total: 381		
Property Type	Number	
Patent Number:	5660680	
Patent Number:	7745313	
Patent Number:	7786376	
Patent Number:	7999174	
Patent Number:	8035027	
Patent Number:	8035028	
Patent Number:	8053665	
Patent Number:	8084684	
Patent Number:	8129822	
Patent Number:	8168465	
Patent Number:	8193076	
Patent Number:	8241940	
Patent Number:	8278192	
Patent Number:	8288195	
Patent Number:	8293558	
Patent Number:	8294026	
Patent Number:	8324499	
Patent Number:	8399331	
Patent Number:	8420435	
Patent Number:	8445314	

PATENT

Property Type	Number
Patent Number:	8512581
Patent Number:	8551866
Patent Number:	8637340
Patent Number:	8656860
Patent Number:	8664737
Patent Number:	8742249
Patent Number:	8828517
Patent Number:	8828784
Patent Number:	8847060
Patent Number:	8853521
Patent Number:	8906218
Patent Number:	8916772
Patent Number:	8926803
Patent Number:	8937243
Patent Number:	8946547
Patent Number:	8962380
Patent Number:	8992746
Patent Number:	8999058
Patent Number:	9053957
Patent Number:	9076642
Patent Number:	9093323
Patent Number:	9099584
Patent Number:	9130076
Patent Number:	9196759
Patent Number:	9214353
Patent Number:	9214585
Patent Number:	9219171
Patent Number:	9236510
Patent Number:	9293619
Patent Number:	9318644
Patent Number:	9330952
Patent Number:	9337374
Patent Number:	9343299
Patent Number:	9349887
Patent Number:	9379258
Patent Number:	9397250
Patent Number:	9401276
Patent Number:	9419165

Property Type	Number
Patent Number:	9455362
Patent Number:	9461582
Patent Number:	9508886
Patent Number:	9515217
Patent Number:	9583651
Patent Number:	9590035
Patent Number:	9595622
Application Number:	11868489
Application Number:	11868492
Application Number:	12477094
Application Number:	12477095
Application Number:	12618663
Application Number:	12620162
Application Number:	12626363
Application Number:	12767791
Application Number:	12879871
Application Number:	13010655
Application Number:	13057115
Application Number:	13057123
Application Number:	13092942
Application Number:	13099825
Application Number:	13099837
Application Number:	13157250
Application Number:	13188156
Application Number:	13209390
Application Number:	13303488
Application Number:	13340887
Application Number:	13341965
Application Number:	13341976
Application Number:	13345861
Application Number:	13433280
Application Number:	13470237
Application Number:	13476955
Application Number:	13477008
Application Number:	13482963
Application Number:	13515848
Application Number:	13652237
Application Number:	13657718

Property Type	Number
Application Number:	13657745
Application Number:	13688062
Application Number:	13731112
Application Number:	13781708
Application Number:	13807631
Application Number:	13852966
Application Number:	13853031
Application Number:	13855657
Application Number:	13866990
Application Number:	13869928
Application Number:	13905113
Application Number:	14072759
Application Number:	14252750
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Application Number:	14488263
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Application Number:	14495883
Application Number:	14500757
Application Number:	14507786
Application Number:	14538760
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Application Number:	14557096
Application Number:	14558707
Application Number:	14563888
Application Number:	14576161
Application Number:	14578161

Property Type	Number
Application Number:	14582090
Application Number:	14582142
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Application Number:	14582177
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Application Number:	14596213
Application Number:	14611982
Application Number:	14615335
Application Number:	14632696
Application Number:	14659235
Application Number:	14666303
Application Number:	14673611
Application Number:	14679731
Application Number:	14733758
Application Number:	14787858
Application Number:	14792412
Application Number:	14810417
Application Number:	14817038
Application Number:	14817185
Application Number:	14818294
Application Number:	14825163
Application Number:	14826171
Application Number:	14829635
Application Number:	14841690
Application Number:	14843991
Application Number:	14846537
Application Number:	14903273
Application Number:	14936673
Application Number:	14937861
Application Number:	14949602
Application Number:	14968672
Application Number:	14968685
Application Number:	14968855
Application Number:	14975496
Application Number:	14991772
Application Number:	14991789
Application Number:	14991841

Property Type	Number
Application Number:	15076577
Application Number:	15131190
Application Number:	15150235
Application Number:	15156286
Application Number:	15172146
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Application Number:	15193107
Application Number:	15202557
Application Number:	15212447
Application Number:	15219213
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Application Number:	15237526
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Application Number:	15276740
Application Number:	15284475
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Application Number:	29568511
Application Number:	29568702

Property Type	Number
Application Number:	29568836
Application Number:	60823200
Application Number:	60828678
Application Number:	60886303
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Application Number:	61007549
Application Number:	61056722
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Application Number:	61077418
Application Number:	61114378
Application Number:	61118243
Application Number:	61145018
Application Number:	61150392
Application Number:	61158223
Application Number:	61162546
Application Number:	61162830
Application Number:	61169139
Application Number:	61172275
Application Number:	61172335
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Application Number:	61175698
Application Number:	61180623
Application Number:	61182635
Application Number:	61195620
Application Number:	61228068
Application Number:	61259829
Application Number:	61285140
Application Number:	61286638
Application Number:	61291156
Application Number:	61300219
Application Number:	61303770
Application Number:	61304340
Application Number:	61304349
Application Number:	61327506
Application Number:	61327563
Application Number:	61349120
Application Number:	61353042
Application Number:	61370956

Property Type	Number
Application Number:	61373793
Application Number:	61386318
Application Number:	61389154
Application Number:	61391863
Application Number:	61409940
Application Number:	61417181
Application Number:	61428600
Application Number:	61428953
Application Number:	61428957
Application Number:	61429032
Application Number:	61429033
Application Number:	61468548
Application Number:	61488628
Application Number:	61488668
Application Number:	61488684
Application Number:	61490562
Application Number:	61490859
Application Number:	61521743
Application Number:	61521754
Application Number:	61561928
Application Number:	61579819
Application Number:	61580290
Application Number:	61582184
Application Number:	61603370
Application Number:	61603894
Application Number:	61605186
Application Number:	61609347
Application Number:	61617023
Application Number:	61617033
Application Number:	61619300
Application Number:	61635824
Application Number:	61637126
Application Number:	61637831
Application Number:	61638474
Application Number:	61652833
Application Number:	61696725
Application Number:	61708477
Application Number:	61714723

Property Type	Number
Application Number:	61722620
Application Number:	61725434
Application Number:	61725981
Application Number:	61763580
Application Number:	61764210
Application Number:	61764217
Application Number:	61764228
Application Number:	61764243
Application Number:	61764255
Application Number:	61764264
Application Number:	61806262
Application Number:	61811736
Application Number:	61815106
Application Number:	61816830
Application Number:	61822426
Application Number:	61827252
Application Number:	61841501
Application Number:	61843429
Application Number:	61843849
Application Number:	61843856
Application Number:	61859166
Application Number:	61859602
Application Number:	61860216
Application Number:	61872035
Application Number:	61878573
Application Number:	61880777
Application Number:	61881594
Application Number:	61891364
Application Number:	61895326
Application Number:	61898504
Application Number:	61902526
Application Number:	61903267
Application Number:	61910271
Application Number:	61910936
Application Number:	61917919
Application Number:	61920209
Application Number:	61920271
Application Number:	61926852

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Application Number:	61929097
Application Number:	61941995
Application Number:	61943332
Application Number:	61945116
Application Number:	61945126
Application Number:	62010980
Application Number:	62032414
Application Number:	62033091
Application Number:	62036609
Application Number:	62037094
Application Number:	62038787
Application Number:	62044312
Application Number:	62044997
Application Number:	62077150
Application Number:	62077878
Application Number:	62110387
Application Number:	62111652
Application Number:	62117418
Application Number:	62140397
Application Number:	62140408
Application Number:	62159947
Application Number:	62164992
Application Number:	62168803
Application Number:	62170100
Application Number:	62188456
Application Number:	62190235
Application Number:	62202749
Application Number:	62202759
Application Number:	62202776
Application Number:	62211622
Application Number:	62220861
Application Number:	62221553
Application Number:	62257695
Application Number:	62257698
Application Number:	62257702
Application Number:	62265953
Application Number:	62277845
Application Number:	62292218

Property Type	Number
Application Number:	62301978
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Application Number:	62317377
Application Number:	62327424
Application Number:	62327426
Application Number:	62327430
Application Number:	62352015
Application Number:	62372298
Application Number:	62401857
Application Number:	62401868
Application Number:	62405866
Application Number:	62408592
Application Number:	62438467
Application Number:	62441198
Application Number:	62442860
Application Number:	62503260
Application Number:	62508225
Application Number:	62512405
Application Number:	62521919

CORRESPONDENCE DATA

Fax Number: (215)542-5825

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.

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:	OPUS GENERAL
NAME OF SUBMITTER:	ELLEN M. DRAEGERT
SIGNATURE:	/Ellen M. Draegert/
DATE SIGNED:	07/27/2017

Total Attachments: 50

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OB Realty, LLC

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Recordation of Patent Properties

**RECORDATION OF FORECLOSURE OF PATENT PROPERTIES OF
BEAMREACH SOLAR, INC. (f/k/a SOLEXEL, INC.), ON BEHALF OF
SECURED PARTY OB REALTY, LLC**

UNITED STATES PATENT AND TRADEMARK OFFICE
Assignments Records Division
P.O. Box 1450
Alexandria, VA 22313-1450

Please find attached, in compliance with the Notice entitled “Recordability of Foreclosure for Assignment Purposes” published at 1089 Official Gazette 35, dated March 14, 1988 (the “Notice”), the following documentation:

Submission is hereby made of the Foreclosure Bill of Sale document dated May 12, 2017, executed under Section 9610 of the California Uniform Commercial Code, on behalf of the secured party OB Realty, LLC, as assignee of Opus Bank, with reference to the Intellectual Property Security Agreement between Solexel, Inc. (Grantor or Debtor) and Opus Bank (Lender) dated 19 December 2014, together with Exhibit A thereto as updated from time to time; including Attachment 1, Exhibit A to which refers to and identifies the patents and patent applications foreclosed upon by this Foreclosure Bill of Sale by patent number or patent application serial number, docket reference number and title, for which recordation is requested.

Accordingly, recordation of title in OB Realty, LLC for the patent properties identified herein is respectfully requested. Should there be any questions or outstanding matters, the Examiner is cordially invited and requested to contact the undersigned attorney at his number listed below.

Respectfully submitted,

/Edward J. Howard/

Dated: July 27, 2017

Edward J. Howard
Howard IP Law Group, PC
P.O. Box 226
Fort Washington, PA 19034

Phone: 215-542-5824

Fax: 215-542-5824

FORECLOSURE

BILL OF SALE

By public sale conducted on May 12, 2017 under Section 9610 of the California Uniform Commercial Code, for good and valuable consideration, OB Realty, LLC, as assignee of Opus Bank ("**Secured Party**") under the Credit Agreement and the General Security Agreement, each dated as of December 19, 2014, between Secured Party and Beamreach Solar, Inc. (f/k/a Solexel, Inc.) ("**Borrower**") (collectively, and as they may have been amended from time to time, the "**Loan Agreement**") hereby sells, conveys, transfers, and assigns to OB Realty, LLC ("**Buyer**") all of Borrower's right, title and interest in and to the foreclosed assets, all as described more particularly in Attachment 1 hereto (the "**Transferred Assets**"), free and clear of the liens of Secured Party.

Buyer accepts such right, title and interest on an "AS IS," "WHERE IS" AND "WITH ALL FAULTS" BASIS, AND WITHOUT EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY OR FITNESS, OR ANY OTHER EXPRESS OR IMPLIED WARRANTIES OR ANY REPRESENTATIONS. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING TOTAL EXCLUSION OF REPRESENTATIONS AND WARRANTIES, THE SALE OF THE TRANSFERRED ASSETS IS MADE WITHOUT ANY REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WRITTEN OR ORAL, AS TO TITLE, AS TO THE VALIDITY, ENFORCEABILITY, PRIORITY OR PERFECTION OF SECURED PARTY'S RIGHT OR INTEREST IN THE TRANSFERRED ASSETS, OR AS TO MERCHANTABILITY, NON-INFRINGEMENT, VALUE, CONDITION, USEFUL LIFE, FITNESS FOR ANY INTENDED OR PARTICULAR USE, POSSESSION, QUIET ENJOYMENT, OR SIMILAR REPRESENTATIONS AND WARRANTIES WITH RESPECT TO THE TRANSFERRED ASSETS. EACH SUCH REPRESENTATION AND WARRANTY IS EXPRESSLY DISCLAIMED. SECURED PARTY UNDERTAKES NO RESPONSIBILITY FOR THE QUALITY OF THE TRANSFERRED ASSETS AND ASSUMES NO RESPONSIBILITY THAT THE TRANSFERRED ASSETS WILL BE FIT FOR ANY PARTICULAR PURPOSE FOR WHICH BUYER MAY WISH TO PUT THE TRANSFERRED ASSETS.

Buyer acknowledges that it is currently in possession of the Transferred Assets and has accepted delivery of the Transferred Assets. Buyer has inspected the Transferred Assets and is aware of and relies solely on its own knowledge of the utility and value thereof. Buyer agrees that Secured Party has made no representations, warranty, statement of fact, or expression of opinion to Buyer with regard to the Transferred Assets, and is under any duty to do so. Buyer agrees that Secured Party has made no warranty or affirmation of fact, promise, description, model, or sample concerning the Transferred Assets.

This Bill of Sale, and in particular Secured Party's sale and transfer of the Transferred Assets, is effective as of May 12, 2017, in consideration of Buyer's credit bid in the amount of \$9,424,000. Accordingly, this Bill of Sale, and Secured Party's sale, conveyance, transfer, and assignment of the Transferred Assets as provided herein, are now fully effective without further action of any party.

Buyer is responsible for (and indemnifies and holds harmless Secured Party and its partners, members, employees, affiliates, agents, successors and assigns against) any sales, use, stamp, documentary stamp, filing, recording, transfer or similar fees or taxes or governmental charges (including any interest and penalty thereon) payable in connection with the transactions contemplated hereby this Bill of Sale.

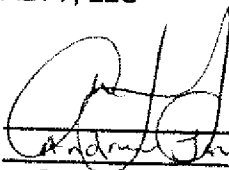
This Bill of Sale may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same agreement.

This Bill of Sale shall be governed by and construed in accordance with the laws of the State of California, without reference to conflicts of laws.

IN WITNESS WHEREOF, the parties have executed this Bill of Sale as of May 12, 2017.

SECURED PARTY

OB REALTY, LLC

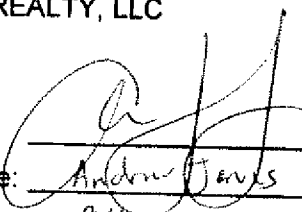
By: 

Name: Andrew Jones

Title: FVP

ACKNOWLEDGED AND AGREED TO BY BUYER:

OB REALTY, LLC

By: 

Name: Andrew Jones

Title: FVP

ATTACHMENT 1

TRANSFERRED ASSETS

The Transferred Assets include all right, title and interest of Debtor in and to the following, whether or not in Borrower's possession:

- (a) All goods and Equipment now owned or hereafter acquired, including, without limitation, all fixtures, and all attachments, accessories, accessions, replacements, substitutions, additions, and improvements to any of the foregoing, wherever located;
- (b) All Inventory;
- (c) All Negotiable Collateral;
- (d) All non-negotiable warehouse receipts and other documents now or hereafter issued with respect to any or all of the Inventory;
- (e) All contract rights and General Intangibles now owned or hereafter acquired, including, without limitation, goodwill;
- (f) All now existing and hereafter arising Accounts, contract rights, Instruments (as defined in the UCC), documents, Chattel Paper (as defined in the UCC) and all other obligations now or hereafter owing to Debtor;
- (g) All documents, securities, investment property, letters of credit, certificates of deposit;
- (h) All Intellectual Property Collateral, which includes all of the following:
 - (i) Copyrights, Trademarks, Patents, and Mask Works;
 - (ii) Licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works, and all license fees and royalties arising from such use to the extent permitted by such license or rights;
 - (iii) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products;
 - (iv) Any and all design rights which may be available to the Borrower; now or hereafter existing, created, acquired or held;
 - (v) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;
 - (vi) All "*domain names*" of the Borrower;

- (vii) All amendments, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works;
 - (viii) All contracts and contract rights relating to any of the foregoing; and
 - (ix) All Proceeds of the foregoing.
- (i) All securities accounts, investment property, securities now owned or hereafter acquired; provided, that any Collateral consisting of equity interests in a Subsidiary formed under the laws of a jurisdiction outside of the United States shall be limited to sixty-five percent (65%) of such securities owned by Debtor;
- (j) All Deposit Accounts wherever maintained.
 - (k) All money, cash equivalents maintained with Lender;
 - (l) All Supporting Obligations as defined in the UCC;
 - (m) All patents and patent applications;
 - (n) All trademarks, trademark applications and trade names;
 - (o) The following licenses:
 - (i) Technology Cost and Risk Sharing Agreement between Solexel, Inc. and Solexel International, Ltd., January 1, 2008.
 - (ii) License Agreement between Solexel, Inc. and Max-Planck-Innovation GmbH dated March 11, 2009.
 - (iii) Exclusive License Agreement for Fabrication of Microstructures with High Vertical Aspect Ratios between Solexel, Inc. and the Regents of the University of California dated September 15, 2008 as amended by Amendment #2 thereto.
 - (iv) Non-Exclusive Patent License Agreement with Interuniversitair Micro-Electronica Centrum dated January 6, 2010.
 - (v) Tool Joint Development and Exclusivity Agreement between Solexel, Inc. and Dainippon Screen Mfg. Co., Ltd. dated March 14, 2010.
 - (vi) Tool Joint Development and Exclusivity Agreement between Solexel, Inc. and Suss MicroTec Lithography GmbH dated April 25, 2008.
 - (vii) High-Volume Manufacturing Epitaxial Deposition Equipment Non-Exclusive License, Joint Development Program, and Commercial Supply Agreement between Solexel, Inc. and Silevo, Inc. (formerly known as Sierra Solar Power Inc.) dated June 10, 2010.

- (viii) Design Services Agreement with Jabil Circuit, Inc. dated October 12, 2011.
- (ix) Joint Development Agreement Memorandum of Understanding between Solexel, Inc., Applied Nanotech Holdings, Inc., and Sichuan Yinhe Chemical Co., Ltd.
- (x) Letter of Agreement with Sanmina-SCI Corporation dated September 15, 2011.
- (xi) Joint Development Agreement with Arlon LLC.
- (xii) Ownership and Assignment of Work Product Agreement between Solexel, Inc. and Karmic US LLC, dated as of April 11, 2014.
- (xiii) Service Agreement between Solexel, Inc. and Case Western Reserve University, dated November 15, 2013.
- (xiv) Intellectual Property and Development Agreement between Solexel, Inc. and Diodes Incorporated, dated as of October 1, 2014.
- (xv) Ownership and Assignment of Work Product between Solexel, Inc. and Zipalog Inc., dated as of September 15, 2014.
- (p) Proceeds of the foregoing; and
- (q) All of Debtor's Books relating to the foregoing.

For the avoidance of doubt, the Transferred Assets include each of the items listed in Exhibit A hereto, under the categories of "Tools," "Equipment & Misc.," "Sprint BOS Detail," "Spare Parts," and "Beamreach Patent Portfolio."

Notwithstanding the foregoing, the Transferred Assets do not include (a) any equipment or other property financed by a third party, (b) any lease, license, contract, property rights or agreement to which any Debtor is a party or any of its rights (including property rights with respect to equipment) or interests thereunder if and for so long as the grant of such security interest shall constitute or result in (i) the abandonment, invalidation or unenforceability of any right, title or interest of any Debtor therein or (ii) in a breach or termination pursuant to the terms of, or a default under any such lease, license, contract or agreement (other than to the extent that any such term would be rendered ineffective pursuant to Sections 9406, 9407, 9408 or 9409 of the UCC (or any successor provision or provisions) of any relevant jurisdiction or any other applicable law (including the Bankruptcy Code) or principles of equity), (c) any interests in real property, or (d) any of the items listed below:

EXCLUDED COLLATERAL

Tool	Model	SN
Akron Wet Bench	V3-SOLAR	140801A007

EXCLUDED COLLATERAL

Tool	Model	SN
WB01 Manual Wet Acid Station	WAFAB 72" WET STATION	13051-01
WB02 Manual Wet Acid Station	WAFAB 96" WET STATION	13056-01
WB07 Manual Wet Acid Station		
WB08 Manual Wet Acid Station		
WB03 - Metal CU Wet Acid Station	WAFAB FRONT ACCESS 29	15766-01
WB04 - Solvent	WAYFAB SS BENCH	
Decon Wet Bench	AMPRO PLASTIC	
BCDS Hydrogen Peroxide	CHEM SAFETY CST-55/2 WC	
BCDS - HCL Bulk Dispense	CHEM SAFETY CST-55/2 WC	
BCDS - HF Bulk Dispense	CHEM SAFETY CST-55/2 WC	10560-600441-003-1
BCDS - KOH Bulk Dispense	CHEM SAFETY CST-55/1/25-ACD	10560-600441-001-2
Supreme Epi Tool	SOLEXEL	1
Tenney Environmental Chamber	ETCU132- RCW15	8030000072
Tenney Environmental Chamber	ETC110-RSW5	07050000022-02
Solar Simulator	SOLEXEL	1
Meier - Module Laminator		
CDO - Point of use scrubber	Centratherm	CT-BW-DH1 500K
Roth & Rau SINA - PECVD	Sina XS	27/08
CDO - Point of use scrubber	Centrotherm	CT-BW DH1500K2
CDO - Point of use scrubber	Delatech-Model 858 V-4	802-038
DNS Silicon Release	WS-820L	F-R2-04391

EXHIBIT A

WEST\276599693.3

PATENT
REEL: 043350 FRAME: 0842

Toolbox Tools

Tool	Model	SN	Permitted	Decon Required
Nikon Inspection Station	vmz-r6555	1622168	No	No
Cassette to Cassette Transfer	GL Automation WT56-SC-13-D	GA102685	No	No
Innolas Laser - Manual	ILSTT-DS	P761	No	No
DEK Galaxy - Screen Printer	GALAXY	292486	No	No
JA Woolman Ellipsometer	EC-400	912004	No	No
Heller Oven - Model 1876 MKS	1876MKS	0215P3-BAA25-39086-02	No	No
MRL Furnace	FCL 2T-BC R-HL / HT1312	EE30779110	Yes	No
Protemp Sirius Furnace	200-2	15212	Yes	No
Bake Chamber	Semilab ZRT - WT-2000PV	WS-08-1099	No	No
Bake Oven	PW Large Format Oven	1792	No	No
ESPEC Environmental Chamber	ESX2CA	19863	No	No
ESPEC Environmental Chamber	TSE-11	161001271	No	No
UV Test Chamber	Eye Super UV Tester	SLV-W161	No	No
QUV Tester	QUV/se	11-2033-79	No	No
Hirayama HAST Chamber	PC422R7	991175660	No	No
FEI Quanta 500 SPM	P2014/23	XTV144108842	No	No
GRACO Plasma Treat Module	FG5001 +PFW10		No	No
LPE EPI Reactor	PE2061S	127	No	No
Semilab Resistivity Monitor	WT-2000PV	WS-08-1099	No	No
Veeco Wyko	NT9800	NT9800B-06-258	No	No
MT: High Temp Vacuum Oven	DZF-6050-HT/500	50DZF130901-HT	No	No
Thermo Scientific Tabletop Oven	F30428C-60-80	1-26208C+12	No	No
YWR 1600 HAF0 SERIES	1675	100498	No	No
EVG Spin Coater	EV101	S050051	No	No
Helium Leak Detector	Spectron 300 F	1	No	No
Fanuc Robot: F118216	M-7101C/50	R11Y02193	No	No
Fanuc Controller R-30iA	A05B-2510-B130	F11Y30085	No	No
Fanuc Robot: F118217	M-710C/50	R11Y02194	No	No
Fanuc Controller R-30iA	A05B-2510-B130	F11Y30086	No	No
P-Energy - Lamination Press	Xsys		No	No

PATENT
REEL: 043350 FRAME: 0845

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[illegible]

Unenclosed Sprint BOB Detail

P/N	Item	Container
60-1218	Foot	Box
60-1218	Foot	Box
60-1218	Foot	Box
60-1218	Foot	Pallet
60-1218	Foot	Box
01-1371	Foot	Box
01-1347	N/S Mounting Foot	Pallet
60-1347	Foot	Box
60-1217	Side Deflector	Box
01-1361	West Side Deflector	Box
01-1361	West Side Deflector	Pallet
60-1376	West Side Deflector	Box
60-1361	West Side Deflector	Box
60-1362	East Side Deflector	Box
01-1362	East Side Deflector	Pallet
60-1219	East Side Deflector	Box
60-1360	Locking Feature	Box
60-1226	Wire Management Tray	package
60-1226	Wire Management Tray	Box

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Emphasized Some Parts

[illegible]

Increased Space Part

[illegible]

Enclosed Space Parts

PART NUMBER	DESCRIPTION	COMMENTS
AS1711501	Flow	Flow Unapproved 17084064
AS1842510	Switch	Flow Switch Cobo PSE 215
AS6200005	Switch	Thermal switch
AS7804130	PC Board	Measurements: Transformer ratio 4:3
AS7804101	PC Board	Control Card 450.10
AS7804102	PC Board	Alarm Temperature Card 50
AS7804103	PC Board	Double Policy with 2 switches
AS7804104	PC Board	RF Relay with reset 960 A
AS7804105	PC Board	Insulated DC/AC Converter 24V
AS7804106	PC Board	Alarm Relay 24V D
AS7804107	PC Board	Alarm Relay 24V D
AS7804108	PC Board	RF
AS7804109	PC Board	RF 160X1037
AS7804110	PC Board	RF 100X1025
AS7804111	PC Board	RF 100X1025
AS7804112	PC Board	RF 100X1025
AS7804113	PC Board	RF 100X1025
AS7804114	PC Board	RF 100X1025
AS7804115	PC Board	RF 100X1025
AS7804116	PC Board	RF 100X1025
AS7804117	PC Board	RF 100X1025
AS7804118	PC Board	RF 100X1025
AS7804119	PC Board	RF 100X1025
AS7804120	PC Board	RF 100X1025
AS7804121	PC Board	RF 100X1025
AS7804122	PC Board	RF 100X1025
AS7804123	PC Board	RF 100X1025
AS7804124	PC Board	RF 100X1025
AS7804125	PC Board	RF 100X1025
AS7804126	PC Board	RF 100X1025
AS7804127	PC Board	RF 100X1025
AS7804128	PC Board	RF 100X1025
AS7804129	PC Board	RF 100X1025
AS7804130	PC Board	RF 100X1025
AS7804131	PC Board	RF 100X1025
AS7804132	PC Board	RF 100X1025
AS7804133	PC Board	RF 100X1025
AS7804134	PC Board	RF 100X1025
AS7804135	PC Board	RF 100X1025
AS7804136	PC Board	RF 100X1025
AS7804137	PC Board	RF 100X1025
AS7804138	PC Board	RF 100X1025
AS7804139	PC Board	RF 100X1025
AS7804140	PC Board	RF 100X1025
AS7804141	PC Board	RF 100X1025
AS7804142	PC Board	RF 100X1025
AS7804143	PC Board	RF 100X1025
AS7804144	PC Board	RF 100X1025
AS7804145	PC Board	RF 100X1025
AS7804146	PC Board	RF 100X1025
AS7804147	PC Board	RF 100X1025
AS7804148	PC Board	RF 100X1025
AS7804149	PC Board	RF 100X1025
AS7804150	PC Board	RF 100X1025
AS7804151	PC Board	RF 100X1025
AS7804152	PC Board	RF 100X1025
AS7804153	PC Board	RF 100X1025
AS7804154	PC Board	RF 100X1025
AS7804155	PC Board	RF 100X1025
AS7804156	PC Board	RF 100X1025
AS7804157	PC Board	RF 100X1025
AS7804158	PC Board	RF 100X1025
AS7804159	PC Board	RF 100X1025
AS7804160	PC Board	RF 100X1025
AS7804161	PC Board	RF 100X1025
AS7804162	PC Board	RF 100X1025
AS7804163	PC Board	RF 100X1025
AS7804164	PC Board	RF 100X1025
AS7804165	PC Board	RF 100X1025
AS7804166	PC Board	RF 100X1025
AS7804167	PC Board	RF 100X1025
AS7804168	PC Board	RF 100X1025
AS7804169	PC Board	RF 100X1025
AS7804170	PC Board	RF 100X1025
AS7804171	PC Board	RF 100X1025
AS7804172	PC Board	RF 100X1025
AS7804173	PC Board	RF 100X1025
AS7804174	PC Board	RF 100X1025
AS7804175	PC Board	RF 100X1025
AS7804176	PC Board	RF 100X1025
AS7804177	PC Board	RF 100X1025
AS7804178	PC Board	RF 100X1025
AS7804179	PC Board	RF 100X1025
AS7804180	PC Board	RF 100X1025
AS7804181	PC Board	RF 100X1025
AS7804182	PC Board	RF 100X1025
AS7804183	PC Board	RF 100X1025
AS7804184	PC Board	RF 100X1025
AS7804185	PC Board	RF 100X1025
AS7804186	PC Board	RF 100X1025
AS7804187	PC Board	RF 100X1025
AS7804188	PC Board	RF 100X1025
AS7804189	PC Board	RF 100X1025
AS7804190	PC Board	RF 100X1025
AS7804191	PC Board	RF 100X1025
AS7804192	PC Board	RF 100X1025
AS7804193	PC Board	RF 100X1025
AS7804194	PC Board	RF 100X1025
AS7804195	PC Board	RF 100X1025
AS7804196	PC Board	RF 100X1025
AS7804197	PC Board	RF 100X1025
AS7804198	PC Board	RF 100X1025
AS7804199	PC Board	RF 100X1025
AS7804200	PC Board	RF 100X1025

Foreboard Space Parts

PART NUMBER	DESCRIPTION	COMMENTS
MFO004	Tube	Tube
MFO078	Socket	Socket
MFO067	Shock	Shock absorber
MFO201	Tube	1/8" TUBE
FO0701	Spring	ROTARY PHOTOCELL ROTATION
FO0703	Photometer	PHOTOMETER
FO0006	Switch	THERMAL SWITCH
FO0015	Winder	CLUTCH FOR DR-46-125
FO0127	Switch	Magnetic proximity limit switch
FO0164	Tube	Tube
FO0265	Valve	Pressure valve (Pressure Valve) 23110-1500 24018
FO0166	Valve	SOLE NOSE VALVE
FO0202	Switch	Switch 1/8" long 1/8" 2/8"
FO0025	Switch	Pressure Switch (Pressure Switch) 23110-1500 24018
FO0028	Switch	Pressure Switch (Pressure Switch) 23110-1500 24018
FO0035	Switch	Pressure Switch (Pressure Switch) 23110-1500 24018
GA0002	Ball	Ball 1/8" Dia
GA0001	Ring	CENTRAL RING DIA 1/8" 1/4"
GA0007	Bracket	Bracket V.E. Gasket
GA0016	Ring	Bracket Centering Ring DIA 1/8"
GA0027	Clamp	CLAMP 23110
GA0035	Wire	Wire
GA0036	Wire	WIRE 1/8" DIA
GA0037	Wire	WIRE 1/8" DIA
GA0038	Wire	WIRE 1/8" DIA
GA0039	Wire	WIRE 1/8" DIA
GA0040	Wire	WIRE 1/8" DIA
GA0041	Wire	WIRE 1/8" DIA
GA0042	Wire	WIRE 1/8" DIA
GA0043	Wire	WIRE 1/8" DIA
GA0044	Wire	WIRE 1/8" DIA
GA0045	Wire	WIRE 1/8" DIA
GA0046	Wire	WIRE 1/8" DIA
GA0047	Wire	WIRE 1/8" DIA
GA0048	Wire	WIRE 1/8" DIA
GA0049	Wire	WIRE 1/8" DIA
GA0050	Wire	WIRE 1/8" DIA
GA0051	Wire	WIRE 1/8" DIA
GA0052	Wire	WIRE 1/8" DIA
GA0053	Wire	WIRE 1/8" DIA
GA0054	Wire	WIRE 1/8" DIA
GA0055	Wire	WIRE 1/8" DIA
GA0056	Wire	WIRE 1/8" DIA
GA0057	Wire	WIRE 1/8" DIA
GA0058	Wire	WIRE 1/8" DIA
GA0059	Wire	WIRE 1/8" DIA
GA0060	Wire	WIRE 1/8" DIA
GA0061	Wire	WIRE 1/8" DIA
GA0062	Wire	WIRE 1/8" DIA
GA0063	Wire	WIRE 1/8" DIA
GA0064	Wire	WIRE 1/8" DIA
GA0065	Wire	WIRE 1/8" DIA
GA0066	Wire	WIRE 1/8" DIA
GA0067	Wire	WIRE 1/8" DIA
GA0068	Wire	WIRE 1/8" DIA
GA0069	Wire	WIRE 1/8" DIA
GA0070	Wire	WIRE 1/8" DIA
GA0071	Wire	WIRE 1/8" DIA
GA0072	Wire	WIRE 1/8" DIA
GA0073	Wire	WIRE 1/8" DIA
GA0074	Wire	WIRE 1/8" DIA
GA0075	Wire	WIRE 1/8" DIA
GA0076	Wire	WIRE 1/8" DIA
GA0077	Wire	WIRE 1/8" DIA
GA0078	Wire	WIRE 1/8" DIA
GA0079	Wire	WIRE 1/8" DIA
GA0080	Wire	WIRE 1/8" DIA
GA0081	Wire	WIRE 1/8" DIA
GA0082	Wire	WIRE 1/8" DIA
GA0083	Wire	WIRE 1/8" DIA
GA0084	Wire	WIRE 1/8" DIA
GA0085	Wire	WIRE 1/8" DIA
GA0086	Wire	WIRE 1/8" DIA
GA0087	Wire	WIRE 1/8" DIA
GA0088	Wire	WIRE 1/8" DIA
GA0089	Wire	WIRE 1/8" DIA
GA0090	Wire	WIRE 1/8" DIA
GA0091	Wire	WIRE 1/8" DIA
GA0092	Wire	WIRE 1/8" DIA
GA0093	Wire	WIRE 1/8" DIA
GA0094	Wire	WIRE 1/8" DIA
GA0095	Wire	WIRE 1/8" DIA
GA0096	Wire	WIRE 1/8" DIA
GA0097	Wire	WIRE 1/8" DIA
GA0098	Wire	WIRE 1/8" DIA
GA0099	Wire	WIRE 1/8" DIA
GA0100	Wire	WIRE 1/8" DIA

Enclosed Space Entry

[illegible]

Enclosed Space Part:

[illegible]

Forced Space Fill.

PART NUMBER	DESCRIPTION	COMMENTS
711177	Wiper Blade, complete (square) for bumper wiper. 13.875" x 2.00" square pin, inner, complete, 1 bumper wiper, 1WV3510.	12/17/15, Received 12/17/15, used blade on APCVD CO. 12/17/15, received 2 new CO wiper blades. Signed invoices and gave to my codes on 12/28/15
757397 780517	Asst spray nozzle 45 deg, raw material 1.4571 / 1.12" / 9.875" / 1.12" 450 MM / 12 CG Wiper assembly, inner assembly.	12/17/15, Received 12/28/15, Received entire wiper assembly. Blade, Piston assembly, Bearing assembly
118248	Sub, HV probe	12/28/15, 1 new HV bulb. Signed packing slip
108146	40 pin cable, 40 pin D-sub, 40 pin D-sub, 40 pin D-sub	12/17/16, Rec 1 each Signed packing slip 12/17/16, Rec 15 each of MM and APCVD CO Quarterly, P&H 12/17/16, rec 150 gas regulators 12/17/16, Signed invoice
7101	PCV Clamping for intake valve, compressed 6.75	12/10/16, Received, caught 300 projectors Key Seal for PCV, installed valve intake
7021 7036	PCV Clamping for APCV, compressed 1.70 Tensioning Rod, 315 x 1.1, Bore 0.75 x 1.1	12/22/16, Received, caught 800 deg. temp. key seal for PCV APCV piston 12/22/16, Received 1 APCV piston, charlie's shop. Installed onto APCVD CO for Bore'd during quarterly pm. Still waiting for 1 more cap. valve's each order 8/29/16, received 1 new APCVD piston charlie's shop. 12/22/16, 2517, 2517, 2517, 2517, 2517
7036	Compressor with 1/2" 40 deg. 1.5 x 1.1 6.75 10	8/29/16, Received 2 compressed air shop outlets for 22VATC 12/22/16, named installed 2 shop outlets during quarterly pm 12/22/16, received 1 new cap. valve's each order. 12/22/16, 2517, 2517, 2517, 2517, 2517
715450	Pressure Sensor, 0.10bar, 40 pin, 40 pin, 40 pin, 40 pin, 40 pin, 40 pin	8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Rec 1 each new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216
753600	Optometrical Pressure Sensor, 15.7bar	8/19/16, Signed invoice 0216-2216 8/19/16, Rec 1 each new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216
699461	Pressure Transducer PMP-20 250bar, 40 pin, 40 pin, 40 pin, 40 pin, 40 pin, 40 pin	8/19/16, Signed invoice 0216-2216 8/19/16, Rec 1 each new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216
715634	Pressure Sensor PMP-20 250bar, 40 pin, 40 pin, 40 pin, 40 pin, 40 pin, 40 pin	8/19/16, Signed invoice 0216-2216 8/19/16, Rec 1 each new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216 8/19/16, Received new sensor. PC0216-2216 8/19/16, Signed invoice 0216-2216
15077	Wiper	12/22/16, Received 1 new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Rec 1 each new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216
1472577	Power supply	12/22/16, Received 1 new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Rec 1 each new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216
15001276	Power supply	12/22/16, Received 1 new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Rec 1 each new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216
324000	Power supply	12/22/16, Received 1 new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Rec 1 each new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216
14717000	Power supply	12/22/16, Received 1 new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Rec 1 each new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216
14717000	Power supply	12/22/16, Received 1 new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Rec 1 each new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216 12/22/16, Received new sensor. PC0216-2216 12/22/16, Signed invoice 0216-2216
147		

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Enclosed Space Parts

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PATENT
REEL: 043350 FRAME: 0858

Beamreach Patent Portfolio
EXHIBIT A - BEAMREACH SOLAR, INC. PATENT PORTFOLIO

DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
001CN	CN	200780045806.2		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001EP	EP	07868363.6		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001IN	IN	17566/OLNP/2008		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001JP	JP	2008-532612	5526806	Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001US0	US	11/868,488	8,129,822	Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001US1	US	12/879,871		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001US2	US	13/099,825		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001US3	US	13/099,837		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001US4	US	13/345,661		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
001USP	US	60/626,678		High-Performance, Three-Dimensional (3D) Thin-Film, Solar Cell Device Structures, Fabrication Processes, and Mass Manufacturing Methods, as well as Solar Module Structures and Assembly Methods Using Such 3D Solar Cells
001USP1B	US	60/666,303		Low-Cost, High-Efficiency, Lightweight, Three-Dimensional (3-D), Prism-Array, Thin-Film Solar Cells and Manufacturing Methods, as well as Solar Module Structures and Assembly Methods Using Such Solar Cells
001WO	WO	PCT/US2007/08065 4		Template For Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
002US0	US	11/868,489		High-Performance, Three-Dimensional (3D) Thin-Film, Solar Cell Device Structures, Fabrication Processes, and Mass Manufacturing Methods, as well as Solar Module Structures and Assembly Methods Using Such 3D Solar Cells
002US1	US	12/767,791		Shadow Mask Methods For Manufacturing Three-Dimensional Thin-Film Solar Cells
002WO	WO	PCT/US2007/08065 5		Methods For Manufacturing Three-Dimensional Thin-Film Solar Cells
003US0	US	11/868,490	8,084,684	Three-Dimensional Thin-Film Solar Cells
003US1	US	12/355,237	8,324,499	Three-Dimensional Thin-Film Solar Cells
003US2	US	13/682,599	9,349,887	Three-Dimensional Thin-Film Solar Cells
003WO	WO	PCT/US2007/08065 6		Three-Dimensional Thin-Film Solar Cells
004US0	US	11/868,491	7,999,374	Solar Module Structures And Assembly Methods For Three-Dimensional Thin-Film Solar Cells
004US1	US	13/167,291	8,742,249	Solar Module Structures And Assembly Methods For Three-Dimensional Thin-Film Solar Cells
004US2	US	14/293,676		Solar Module Structures And Assembly Methods For Three-Dimensional Thin-Film Solar Cells
004WO	WO	PCT/US2007/08065 7		Solar Module Structures And Assembly Methods For Three-Dimensional Thin-Film Solar Cells
005US0	US	11/641,629	7,786,376	High Efficiency Solar Cell
005USP	US	60/823,200		High Efficiency Solar Cell
006US0	US	11/868,492		Template For Pyramidal Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use

Beamreach Patent Portfolio
EXHIBIT A - BEAMREACH SOLAR, INC. PATENT PORTFOLIO

DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
006WO	WO	PCT/US2007/08065 8		Template For Pyramidal Three-Dimensional Thin-Film Solar Cell Manufacturing And Methods Of Use
007CN	CN	20078045520.2	ZL200780045520 2	Pyramidal Three-Dimensional Thin-Film Solar Cells
007EP	EP	07668366.9		Pyramidal Three-Dimensional Thin-Film Solar Cells
007IN	IN	1725/KOLNP/2009		Pyramidal Three-Dimensional Thin-Film Solar Cells
007JP	JP	2009-532513	5519285	Pyramidal Three-Dimensional Thin-Film Solar Cells
007JPB1	JP	2014-076786	5739037	Pyramidal Three-Dimensional Thin-Film Solar Cells
007US9	US	11/866,493	8,035,026	Pyramidal Three-Dimensional Thin-Film Solar Cells
007US1	US	13/186,156		Pyramidal Three-Dimensional Thin-Film Solar Cells
007WO	WO	PCT/US2007/08065 9		Pyramidal Three-Dimensional Thin-Film Solar Cells
008US0	US	11/866,494	8,035,027	Solar Module Structures And Assembly Methods For Pyramidal Three-Dimensional Thin-Film Solar Cells
008US1	US	13/186,303	8,847,060	Solar Module Structures And Assembly Methods For Pyramidal Three-Dimensional Thin-Film Solar Cells
008US2	US	14/860,757		Structures And Fabrication Methods For Solar Cells And Modules
006WO	WO	PCT/US2007/08066 0		Solar Module Structures And Assembly Methods For Pyramidal Three-Dimensional Thin-Film Solar Cells
009EP1	EP	10749454.4		Method For Releasing A Thin-Film Substrate
009US0	US	12/473,811	7,745,313	Substrate Release Methods And Apparatus
009US1	US	12/719,766	8,293,558	Method For Releasing A Thin-Film Substrate
009US2	US	12/626,641	8,193,076	Method For Releasing A Thin Semiconductor Substrate From A Reusable Template
009US3	US	13/463,757	9,297,250	A Releasing Apparatus For Separating A Semiconductor Substrate From A Semiconductor Template
009US3C1	US	15/212,447		Methods For Releasing A Semiconductor Substrate From A Template
009US4	US	13/657,718		Method For Releasing A Thin-Film Substrate
009USP	US	61/056,722		Substrate Release Methods And Apparatus
009WO1	WO	PCT/US2010/02657 0		Method For Releasing A Thin-Film Substrate
010US0	US	12/193,415	8,512,581	Methods For Liquid Transfer Coating Of Three-Dimensional Substrates
010US1	US	13/942,150	8,093,323	Methods For Selectively Coating Three-Dimensional Features On A Substrate
010US1C1	US	14/610,417		Methods For Selectively Coating Three-Dimensional Features On A Substrate
010USP	US	60/956,388		Liquid Transfer Coating Apparatus And Methods
010WO	US	PCT/US2008/07348 9		Methods For Liquid Transfer Coating Of Three-Dimensional Substrates
011US0	US	12/477,095		Alternate Use For Low Viscosity Liquids And Method To Gel Liquid
011US1	US	12/626,363		Alternate Use For Low Viscosity Liquids And Method To Gel Liquid
011USP	US	61/007,549		Alternate Use For Low Viscosity Liquids And Method To Gel Liquid
012US0	US	12/477,094		Method And Apparatus To Transfer Coat Uneven Surface
012US1	US	12/620,162		Method And Apparatus To Transfer Coat Uneven Surface

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
012USP	US	61/195,620		Method And Apparatus To Transfer Coat Uneven Surface
013USP	US	61/077,259		Alternate Use For Low Viscosity Liquids And Method To Gel Liquid
014USP	US	61/077,418		Method And Apparatus To Transfer Coat Uneven Surface
015USP	US	61/158,223		Method And Apparatus For Releasing Thin-Film Silicon Substrates
017DE	DE	09626880.9	EP2356675	Methods And Systems For Manufacturing Thin-Film Solar Cells (Validated in DE FR GB & NL)
017EP	EP	09626880.9	EP2356675	Methods And Systems For Manufacturing Thin-Film Solar Cells (Validated in DE FR GB & NL)
017FR	FR	09626880.9	EP2356675	Methods And Systems For Manufacturing Thin-Film Solar Cells (Validated in DE FR GB & NL)
017GB	GB	09626880.9	EP2356675	Methods And Systems For Manufacturing Thin-Film Solar Cells (Validated in DE FR GB & NL)
017NL	NL	09626880.9	EP2356675	Methods And Systems For Manufacturing Thin-Film Solar Cells (Validated in DE FR GB & NL)
017US0	US	12/618,646	8,168,465	Three-Dimensional Semiconductor Template For Making High Efficiency Thin-Film Solar Cells
017US1	US	13/345,935	8,664,737	Three-Dimensional Semiconductor Template For Making High Efficiency Thin-Film Solar Cells
017US2	US	14/195,748	9,590,035	Three-Dimensional Semiconductor Template For Making High Efficiency Solar Cells
017USP	US	61/114,378		Re-Usable Crystallographically-Etched Silicon Template For Making Three-Dimensional Thin-Film Solar Cells
017WO	WO	PCT/US2009/06448 4		Methods And Systems For Manufacturing Thin-Film Solar Cells
018EP	US	09629825.0		Truncated Pyramid Structures For See-Through Solar Cells
018MY	MY	P12011002341		Truncated Pyramid Structures For See-Through Solar Cells
018US0	US	12/626,778	8,053,605	Truncated Pyramid Structures For See-Through Solar Cells
018US1	US	13/010,655		Truncated Pyramid Structures For See-Through Solar Cells
018US2	US	13/193,302	8,853,521	Truncated Pyramid Structures For See-Through Solar Cells
018US3	US	14/507,796		Truncated Pyramid Structures For See-Through Solar Cells
018USP	US	61/118,243		Truncated Pyramid Structures For See-Through Solar Cells
018WO	WO	PCT/US2009/06501 1		Truncated Pyramid Structures For See-Through Solar Cells
019US0	US	12/728,772	8,828,517	Structure And Method For Improving Solar Cell Efficiency And Mechanical Strength
019US1	US	14/479,623		Structure And Method For Improving Solar Cell Efficiency And Mechanical Strength
019USP	US	61/162,546		Structure And Method For Improving Solar Cell Efficiency And Mechanical Strength Using Variable Aperture Size And Wall Thickness
020DE	DE	10732153.1	EP2387458	Porous Silicon Electro-Etching System And Method (Validated in DE DK FR GB & NL)
020DK	DK	10732153.1	EP2387458	Porous Silicon Electro-Etching System And Method (Validated in DE DK FR GB & NL)
020EP	EP	10732153.1	EP2387458	Porous Silicon Electro-Etching System And Method (Validated in DE DK FR GB & NL)
020FR	FR	10732153.1	EP2387458	Porous Silicon Electro-Etching System And Method (Validated in DE DK FR GB & NL)
020GB	GB	10732153.1	EP2387458	Porous Silicon Electro-Etching System And Method (Validated in DE DK FR GB & NL)
020JP	JP	2011-546393		Porous Silicon Electro-Etching System And Method
020MY	MY	P12011003342		Porous Silicon Electro-Etching System And Method
020NL	NL	10732153.1	EP2387458	Porous Silicon Electro-Etching System And Method (Validated in DE DK FR GB & NL)

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
020US0	US	12/588,495	8,826,803	Porous Silicon Electro-Etching System And Method
020US1	US	14/589,667		Porous Silicon Electro-Etching System And Method
020US2	US	14/589,647		Porous Silicon Electro-Etching System And Method
020USP	US	61/145,018		Porous Silicon Electro-Etching System And Method
020WO	WO	PCT/US2010/021209		Porous Silicon Electro-Etching System And Method
021CN	CN	201063060493.8		Structures And Methods For High-Efficiency Pyramidal Three-Dimensional Solar Cells
021EP	EP	10830077.5		Structures And Methods For High-Efficiency Pyramidal Three-Dimensional Solar Cells
021US0	US	12/615,383	8,937,243	Structures And Methods For High-Efficiency Pyramidal Three-Dimensional Solar Cells
021US1	US	14/601,123	9,595,622	Structures And Methods For High-Efficiency Pyramidal Three-Dimensional Solar Cells
021WO	WO	PCT/US2010/056254		Structures And Methods For High-Efficiency Pyramidal Three-Dimensional Solar Cells
022EP	EP	10736242.5		Trench Formation Method For Releasing A Thin-Film Substrate From A Reusable Semiconductor Template
022MY	MY	P2011700122		Trench Formation Method For Releasing A Thin-Film Substrate From A Reusable Semiconductor Template
022US0	US	12/702,187	8,278,192	Trench Formation Method For Releasing A Thin-Film Substrate From A Reusable Semiconductor Template
022US1	US	13/633,723	8,343,299	Trench Formation Method For Releasing A Substrate From A Semiconductor Template
022US2	US	15/156,286		Trench Formation Method For Releasing A Substrate From A Semiconductor Template
022USP	US	61/150,382		Methods Of Making Trenches For Defining And Releasing Structured Thin-Film Substrates From Re-Usable Semiconductor Templates
022WO	WO	PCT/US2010/023514		Trench Formation Method For Releasing A Thin-Film Substrate From A Reusable Semiconductor Template
023USP	US	61/162,830		Self-Supporting Three Dimensional Thin Film Semiconductor Substrate
024CN	CN	2010630021690.9	ZL2010630021690.9	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor
024DE	DE	10765064.0	EP2419306	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor (Validated in DE FR GB & NL)
024EP	EP	10765064.0	EP2419306	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor (Validated in DE FR GB & NL)
024FR	FR	10765064.0	EP2419306	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor (Validated in DE FR GB & NL)
024GB	GB	10765064.0	EP2419306	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor (Validated in DE FR GB & NL)
024MY	MY	P20111004789		High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor
024NL	NL	10765064.0	EP2419306	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor (Validated in DE FR GB & NL)
024US0	US	12/759,820	8,656,860	High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor
024USP	US	61/169,139		High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor
024WO	WO	PCT/US2010/030991		High Efficiency Epitaxial Chemical Vapor Deposition (Cvd) Reactor

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
025US0	US	12/767,512	9,099,564	Integrated Three-Dimensional And Planar Metallization Structure For Thin Film Solar Cells
025USOC1	US	14/817,038		Integrated Three-Dimensional And Planar Metallization Structure For Thin Film Solar Cells
025USP	US	61/172,335		Integrated 3-Dimension And Planar Metallization Structure For Thin Film Solar Cells
027USP	US	61/172,275		Shadow Mask Nitride For Forming Selective Back Side And Front Side Contacts
028US0	US	12/786,262	8,445,214	Method Of Creating Reusable Template For Detachable Thin Film Substrate
028US1	US	13/897,323	8,053,857	Structure And Method For Creating A Reusable Template For Detachable Thin Film Substrates
028US1C1	US	14/733,758		Structure And Method For Creating A Reusable Template For Detachable Thin Film Substrates
028USP	US	61/180,623		Method Of Creating Reusable Template For Detachable Thin Film Substrate
029CN	CN	201060030623.7	ZL201080030023.7	High-Productivity Porous Silicon Manufacturing Equipment
029EP	EP	10772799.2		High-Productivity Porous Silicon Manufacturing Equipment
029JP	JP	2012-509957	5872456	High-Productivity Porous Silicon Manufacturing Equipment
029MY	MY	P02011005354		High-Productivity Porous Silicon Manufacturing Equipment
029US0	US	12/774,657	8,999,058	High-Productivity Porous Silicon Manufacturing Equipment
029USOC1	US	14/678,731		High-Productivity Porous Silicon Manufacturing Equipment
029USP	US	61/175,535		High-Productivity Porous Silicon Manufacturing Equipment
029WO	WO	PCT/US2010/033792		High-Productivity Porous Silicon Manufacturing Equipment
030US0	US	12/774,713	8,420,435	Ion Implantation Fabrication Process For Thin-Film Crystalline Silicon Solar Cells
030US1	US	13/688,062		Ion Implantation Fabrication Process For Thin-Film Crystalline Silicon Solar Cells
030USP	US	61/175,696		Application Of Ion Implantation Process In Thin-Film Crystalline Silicon Solar Cell Fabrication
031USP	US	61/182,635		Self-Supporting Three Dimensional Thin Film Semiconductor Substrate With Through-Holes For Making See-Through Solar Cells
032DE	DE	10781392.5	EP2436028	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing (Validated in DE FR GB & NL)
032EP	EP	10781392.5	EP2436028	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing (Validated in DE FR GB & NL)
032FR	FR	10781392.5	EP2436028	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing (Validated in DE FR GB & NL)
032GB	GB	10781392.5	EP2436028	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing (Validated in DE FR GB & NL)
032MY	MY	P02011700177	MY185405-A1	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing
032NL	NL	10781392.5	EP2436028	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing (Validated in DE FR GB & NL)

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
032US0	US	12/791,842	8,551,856	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing
032US1	US	13/962,291	8,916,772	Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing
032US2	US	14/578,161		Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing
032USP	US	61/228,068		Three-Dimensional Solar Cell Structures And Methods Of Manufacturing
032WO	WO	PCT/US2010/03697 5		Three-Dimensional Thin-Film Semiconductor Substrate With Through-Holes And Methods Of Manufacturing
033USP	US	61/259,826		High-Productivity Substrate Edge Preparation Manufacturing Equipment
034EP1	EP	10756806.9		Method For Fabricating A Three-Dimensional Thin-Film Semiconductor Substrate From A Template
034MY1	MY	P2011004548	MY-159267-A	Method For Fabricating A Three-Dimensional Thin-Film Semiconductor Substrate From A Template
034US0	US	12/618,663		Thin-Film Solar Cells Based On Crystalline Templates Having Inverted Pyramidal Cavity
034US1	US	12/731,058	8,283,195	Method For Fabricating A Three-Dimensional Thin-Film Semiconductor Substrate From A Template
034US2	US	13/652,237		Method For Fabricating A Three-Dimensional Thin-Film Semiconductor Substrate From A Template
034WO1	WO	PCT/US2010/02853 4		Method For Fabricating A Three-Dimensional Thin-Film Semiconductor Substrate From A Template
035US0	US	12/618,668	8,294,026	High-Efficiency Thin-Film Solar Cells
035US1	US	13/657,745		High-Efficiency Thin-Film Solar Cells
036CN	CN	201080063494.8	ZL201080063494. 8	High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Thin Planar Semiconductor Absorbers
036CN1	CN	201080063303.8	ZL201080063303. 8	High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Semiconductor Wafers
036CN2	CN	201080063496.7	ZL201080063496. 7	High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Three-Dimensional Semiconductor Absorbers
036EP	EP	10836710.3		Method For Manufacturing Back Contact Back Junction Solar Cells
036EP1	EP	10836723.8		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Semiconductor Wafers
036EP2	EP	10836703.8		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Three-Dimensional Semiconductor Absorbers
036MY	MY	P2012700546		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Thin Planar Semiconductor Absorbers
036MY1	MY	P2012700547		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Semiconductor Wafers
036NOC1	NO	14/629,273	8,186,759	High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods
036NOC2	NO	14/649,602		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
036USN0	US	13/957,104	8,962,360	High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Thin Planar Semiconductor Absorbers
036USN1	US	13/957,115		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Semiconductor Wafers
036USN2	US	13/957,123		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Three-Dimensional Semiconductor Absorbers
036USP	US	61/265,140		High-Efficiency Photovoltaic Solar Cell Structures And Manufacturing Methods
036WO	WO	PCT/US2010/05975 5		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Thin Planar Semiconductor Absorbers
036WO1	WO	PCT/US2010/05972 3		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Semiconductor Wafers
036WO2	WO	PCT/US2010/05974 6		High-Efficiency Photovoltaic Back-Contact Solar Cell Structures And Manufacturing Methods Using Three-Dimensional Semiconductor Absorbers
037CN	CN	201060063771.5		Mobile Vacuum Carriers For Thin Wafer Processing
037EP	EP	10642566.1		Mobile Vacuum Carriers For Thin Wafer Processing
037USN	US	13/515,848		Mobile Vacuum Carriers For Thin Wafer Processing
037USP	US	61/296,638		Mobile Vacuum Carriers For Thin Wafer Processing
037WO	WO	PCT/US2010/06059 1		Mobile Vacuum Carriers For Thin Wafer Processing
038CN	CN	201060064953.4	ZL201060064953 4	Mobile Electrostatic Carriers For Thin Wafer Processing
038DE	DE	10641770.0	EP2519967	Mobile Electrostatic Carriers For Thin Wafer Processing (validated in DE DK FR GB & NL)
038DK	DK	10641770.0	EP2519967	Mobile Electrostatic Carriers For Thin Wafer Processing (validated in DE DK FR GB & NL)
038EP	EP	10641770.0	EP2519967	Mobile Electrostatic Carriers For Thin Wafer Processing (validated in DE DK FR GB & NL)
038FR	FR	10641770.0	EP2519967	Mobile Electrostatic Carriers For Thin Wafer Processing (validated in DE DK FR GB & NL)
038GB	GB	10641770.0	EP2519967	Mobile Electrostatic Carriers For Thin Wafer Processing (validated in DE DK FR GB & NL)
038NL	NL	10641770.0	EP2519967	Mobile Electrostatic Carriers For Thin Wafer Processing (validated in DE DK FR GB & NL)
038USN	US	13/520,136	9,339,862	Bipolar Mobile Electrostatic Carriers For Wafer Processing
038USNDC1	US	14/991,772		Bipolar Mobile Electrostatic Carriers For Wafer Processing
038USP	US	61/291,156		Mobile Electrostatic Carriers For Thin Wafer Processing
038WO	WO	PCT/US2010/06261 4		Mobile Electrostatic Carriers For Thin Wafer Processing
039USP	US	61/303,219		Reinforcement Of Thin Semiconductor Substrates For Solar Cell, Microelectronics, And Related Applications
040USP	US	61/303,770		High-Efficiency Photovoltaic Solar Cell Structures And Manufacturing Methods
041CN	CN	201160016589.2	ZL201160016589. 2	Double-Sided Reusable Templates For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
041EP	EP	11742933.2		Double-Sided Reusable Template For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing
041US0	US	13/026,239	8,241,840	Double-Sided Reusable Template For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing
041US1	US	13/554,103	9,401,276	Apparatus For Forming Porous Silicon Layers On At Least Two Surfaces Of A Plurality Of Silicon Templates
041US2	US	15/219,213		Double-Sided Reusable Template For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing
041USP	US	61/304,340		Double-Sided Reusable Template For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing
041WO	WO	PCT/US2011/02467 0		Double-Sided Reusable Template For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing
042USP	US	61/304,349		Double-Sided Reusable Template For Fabrication Of Semiconductor Substrates For Photovoltaic Cell And Microelectronics Device Manufacturing
043EP	EP	11772838.6		Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
043KR	KR	10-2012-7030770	10-1381305	Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
043KR-DIV	KR	10-2013-7012059		Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
043US0	US	13/092,942		Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
043USP	US	61/327,506		Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
043WO	WO	PCT/US2011/033370 6		Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
044USP	US	61/327,563		Methods For Releasing A Thin-Film Substrate From A Reusable Template
045EP	EP	11787543.5		Laser Processing For High-Efficiency Thin Crystalline Silicon Solar Cell Fabrication
045EP3	EP	11853473.4		Laser Processing Methods For Photovoltaic Solar Cells
045KR	KR	10-2012-7033676	10-1289787	Laser Processing For High-Efficiency Thin Crystalline Silicon Solar Cell Fabrication
045KR2	KR	10-2013-7020189	10-1384853	Laser Processing Methods For Photovoltaic Solar Cells
045MY	MY	P12013701141		Laser Processing For High-Efficiency Thin Crystalline Silicon Solar Cell Fabrication
045US0	US	13/118,295	8,369,331	Laser Processing For High-Efficiency Thin Crystalline Silicon Solar Cell Fabrication
045US1	US	13/271,212	9,508,886	Method For Making A Crystalline Silicon Solar Cell Substrate Utilizing Flat Top Laser Beam
045US1C1	US	15/361,832		Method For Making A Crystalline Silicon Solar Cell Substrate Utilizing Flat Top Laser Beam
045US2	US	13/303,488		Method For Forming A Photovoltaic Solar Cell Comprising Laser Annealing The Front Surface Of Silicon Substrate Having A Passivation Layer Covered Thereon

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
045US3	US	13/340,877	8,637,340	Patterning Of Silicon Oxide Layers Using Pulsed Laser Ablation
045US4	US	13/340,867		Laser Doping Techniques For High-Efficiency Crystalline Semiconductor Solar Cells
045US5	US	13/340,903	8,455,362	Laser Irradiation Aluminum Doping For Monocrystalline Silicon Substrates
045US5C1	US	15/276,740		Laser Irradiation Aluminum Doping For Monocrystalline Silicon Substrates
045US6	US	13/846,230	9,418,165	Laser Processing For Back Contact Crystalline Silicon Solar Cell Fabrication
045US6C1	US	15/237,526		Laser Processing For Back Contact Crystalline Silicon Solar Cell Fabrication
045US7	US	14/137,172	9,236,510	Patterning Of Silicon Oxide Layers Using Pulsed Laser Ablation
045US7C1	US	14/921,788		Patterning Of Silicon Oxide Layers Using Pulsed Laser Ablation
045USP	US	61/049,120		Laser Processing For High-Efficiency Solar Cell Fabrication
045WO	WO	PCT/US2011/03844 4		Laser Processing For High-Efficiency Thin Crystalline Silicon Solar Cell Fabrication
045WO2	WO	PCT/US2011/06201 9		Laser Annealing Applications In High-Efficiency Solar Cells
045WO3	WO	PCT/US2011/06803 7		Laser Processing Methods For Photovoltaic Solar Cells
046EP	EP	11783204.6		High Productivity Thin Film Deposition Method And System
046KR	KR	10-2013-7000556	10-1368282	High Productivity Thin Film Deposition Method And System
046KRD1	KR	10-2013-7009928		High Productivity Thin Film Deposition Method And System
046US0	US	13/157,260		High Productivity Thin Film Deposition Method And System
046USP	US	61/353,042		Parallel-Architecture High-Productivity Depletion-Mode Epitaxial Semiconductor Deposition Reactor Apparatus and Method
046WO	WO	PCT/US2011/03967 7		High Productivity Thin Film Deposition Method And System
047EP	EP	11871366.9		Backplane Reinforcement And Interconnects For Solar Cells
047EP1	EP	12765891.2		Active Backplane For Thin Silicon Solar Cells
047KR	KR	10-2013-7005704		Backplane Reinforcement And Interconnects For Solar Cells
047KR1	KR	10-2013-7028432		Active Backplane For Thin Silicon Solar Cells
047MY	MY	P/2013/00332	MY-158500-A	Backplane Reinforcement And Interconnects For Solar Cells
047MY1	MY	P/2014/00151		Active Backplane For Thin Silicon Solar Cells
047US0	US	13/204,636	8,546,547	Backplane Reinforcement And Interconnects For Solar Cells
047US0C1	US	14/611,962		Backplane Reinforcement And Interconnects For Solar Cells
047US1	US	13/433,260		Active Backplane For Thin Silicon Solar Cells
047US1C1	US	14/615,335		Active Backplane For Thin Silicon Solar Cells
047USP	US	61/370,966		Backplane Reinforcement And Interconnects For Solar Cells
047WO	WO	PCT/US2011/04667 3		Backplane Reinforcement And Interconnects For Solar Cells
047WO1	WO	PCT/US2012/03104 3		Active Backplane For Thin Silicon Solar Cells

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
048KR	KR	10-2013-7005997	10-1289789	Apparatus And Method For Repeatedly Fabricating Thin Film Semiconductor Substrates Using A Template
048US0	US	13/209,390		Apparatus And Method For Repeatedly Fabricating Thin Film Semiconductor Substrates Using A Template
048USP	US	61/373,793		Apparatus And Method For Repeatedly Fabricating Thin Film Semiconductor Substrates Using A Template
048WO	WO	PCT/US2011/04789 9		Apparatus And Method For Repeatedly Fabricating Thin Film Semiconductor Substrates Using A Template
049EP	EP	11827704.5		High-Throughput Batch Porous Silicon Manufacturing Equipment Design and Processing Methods
049EP1	EP	11876396.0		Apparatus And Method For Uniformly Forming Porous Semiconductor On A Substrate
049KR	KR	10-2013-7010390	10-1347681	High-Throughput Batch Porous Silicon Manufacturing Equipment Design and Processing Methods
049KR1	KR	10-2013-7014255		Apparatus And Method For Uniformly Forming Porous Semiconductor On A Substrate
049US0	US	13/244,466	6,076,642	High-Throughput Batch Porous Silicon Manufacturing Equipment Design And Processing Methods
049US0C1	US	14/792,412		High-Throughput Batch Porous Silicon Manufacturing Equipment Design And Processing Methods
049US0C2	US	15/398,681		High-Throughput Batch Porous Silicon Manufacturing Equipment Design And Processing Methods
049US1	US	13/288,721	6,906,216	Apparatus And Method For Uniformly Forming Porous Semiconductor On A Substrate
049US2	US	13/470,237		High-Throughput Batch Porous Silicon Manufacturing Equipment Design And Processing Methods
049US3	US	14/563,868		Apparatus And Method For Uniformly Forming Porous Semiconductor On A Substrate
049USP	US	61/386,318		High-Throughput Batch Porous Silicon Manufacturing Equipment Design and Processing Methods
049WO	WO	PCT/US2011/05318 3		High-Throughput Batch Porous Silicon Manufacturing Equipment Design and Processing Methods
049WO1	WO	PCT/US2011/05917 7		Apparatus And Method For Uniformly Forming Porous Semiconductor On A Substrate
050USP	US	61/389,154		Methods And Apparatus For High-Productivity Batch Wafer Processing
051USP	US	61/391,863		Flat-Top Laser Beams For High-Throughput Processing Of Back Contact Solar Cells
052USP	US	61/409,940		Apparatus And Method For Uniformly Forming Porous Semiconductor On A Substrate
053USP	US	61/417,181		Laser Annealing Applications In High-Efficiency Solar Cells
054USP	US	61/429,600		Patterning Of Silicon Oxide Layers Using Pulsed Laser Ablation
055USP	US	61/429,953		Laser Doping Techniques For High-Efficiency Crystalline Semiconductor Solar Cells
056USP	US	61/429,857		Laser Annealing For Aluminum Doping And Formation Of Back-Surface Field In Solar Cell Contacts
057EP	EP	11856289.1		Deposition Systems And Processes
057KR	KR	10-2013-7020188	10-1368598	Deposition Systems And Processes
057MY	MY	P12013701140		Deposition Systems And Processes
057US0	US	13/341,965		Deposition Systems And Processes
057USP	US	61/429,022		Apparatus And Method For Reducing The Cost And Improving Uniformity Of Deposition Systems And Processes
057WO	WO	PCT/US2011/06826 7		Deposition Systems And Processes
058KR	KR	10-2013-7020199	10-1384672	Method For Reconstructing A Semiconductor Template
058MY	MY	P12013701139		Method For Reconstructing A Semiconductor Template
058US0	US	13/341,976		Method For Reconstructing A Semiconductor Template

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EXHIBIT A - BEAMREACH SOLAR, INC. PATENT PORTFOLIO

ROCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
058USP	US	61/429,033		Methods For Reconstructing, Thickening, Repairing, Smoothing And Reconditioning Of A Semiconductor Substrate
058WO	WO	PCT/US2011/06827 0		Method For Reconstructing A Semiconductor Template
059USP	US	61/468,548		Active Backplane For Thin Silicon Solar Cells
060AU	AU	2012258866		Self-Activated Front Surface Bias For A Solar Cell
060AUD1	AU	2015200219		Self-Activated Front Surface Bias For A Solar Cell
060EP	EP	12790369.8		Self-Activated Front Surface Bias For A Solar Cell
060KR	KR	10-2013-7033627	10-1449891	Self-Activated Front Surface Bias For A Solar Cell
060US0	US	13/476,955		Self-Activated Front Surface Bias For A Solar Cell
060USP	US	61/488,668		Front Surface Bias Plus Bypass Protection For A Solar Cell With Back Surface Contacts
060USPNU	US	61/488,668		Front Surface Bias Plus Bypass Protection For A Solar Cell With Back Surface Contacts
060WO	WO	PCT/US2012/03869 5		Self-Activated Front Surface Bias For A Solar Cell
061KR	KR	10-2013-7034083	10-1532721	Spatially Selective Laser Annealing Applications In High-Efficiency Solar Cells
061US0	US	13/477,008		Spatially Selective Laser Annealing Applications In High-Efficiency Solar Cells
061USP	US	61/488,684		Spatially Selective Laser Annealing Technique For High-Efficiency Crystalline Semiconductor Solar Cells
061WO	WO	PCT/US2012/03890 7		Spatially Selective Laser Annealing Applications In High-Efficiency Solar Cells
062KR	KR	10-2013-7034593	10-1369030	Method And Apparatus For Reconditioning A Carrier Wafer For Reuse
062MY	MY	P12013702563		Method And Apparatus For Reconditioning A Carrier Wafer For Reuse
062P1	US			
062US0	US	13/482,983		Method And Apparatus For Reconditioning A Carrier Wafer For Reuse
062USP	US	61/490,562		Structures, Apparatuses, And Methods For Fabricating Thin Solar Cells Including The Reconditioning And Reuse Of Carrier Wafers
062WO	WO	PCT/US2012/03969 1		Method And Apparatus For Reconditioning A Carrier Wafer For Reuse
063EP	EP	12793962.7		Ion Implantation And Annealing For High Efficiency Back-Contact Back-Junction Solar Cells
063KR	KR	10-2013-7034723	10-1396027	Ion Implantation And Annealing For High Efficiency Back-Contact Back-Junction Solar Cells
063US0	US	13/483,024	9,318,644	Ion Implantation And Annealing For Thin-Film Crystalline Solar Cells
063US1	US	15/131,190		Ion Implantation And Annealing For Thin-Film Crystalline Solar Cells
063USP	US	61/490,859		High Efficiency Back-Contact, Back-Junction, Solar Cells Fabricated By Ion Implantation And Laser Annealing
063WO	WO	PCT/US2012/03990 1		Ion Implantation And Annealing For High Efficiency Back-Contact Back-Junction Solar Cells

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
067USP	US	61/521,743		Backside Reinforcement of Thin Crystalline Si Solar Cells
068AU	AU	2012294932	2012294932	High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068CN	CN	201280049551 E		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068EP	EP	12822670.1		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068JP	JP	2014-525003		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068KR	KR	10-2014-7006376		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068MY	MY	P2014700259		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068USN	US	13/807,631		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
068USP	US	61/521,754		High-Efficiency Solar Cells Using Thin Crystalline Semiconductor Absorbers
068WO	WO	PCT/US2012/00034 B		High-Efficiency Solar Photovoltaic Cells And Modules Using Thin Crystalline Semiconductor Absorbers
069AU	AU	2012340098	2012340098	Smart Photovoltaic Cells And Modules
069CN	CN	201280067268 E		Smart Photovoltaic Cells And Modules
069CN1	CN	201480033827.3		Smart Photovoltaic Cells And Modules
069EP	EP	12850632.6		Smart Photovoltaic Cells And Modules
069JP	JP	2014-542579		Smart Photovoltaic Cells And Modules
069JP1	JP	2016-507903		Smart Photovoltaic Cells And Modules
069KR	KR	10-2014-7016508		Smart Photovoltaic Cells And Modules
069MY	MY	P2014701287		Smart Photovoltaic Cells And Modules
069MY1	MY	P2015703627		Smart Photovoltaic Cells And Modules
069US0	US	13/082,674	9,293,619	Smart Photovoltaic Cells And Modules
069US0C1	US	14/591,841		Smart Photovoltaic Cells And Modules
069US0C1T	US	15/076,577		Smart Photovoltaic Cells And Modules
069US1	US	14/252,776		Smart Photovoltaic Cells And Modules
069USN1	US	14/426,921		Smart Photovoltaic Cells And Modules
069USP	US	61/561,928		Smart Photovoltaic Cells And Modules For Increased Power Harvesting, Enhanced Energy Yield, Remote Access Performance Monitoring And Control
069WO	WO	PCT/US2012/06615 D		Smart Photovoltaic Cells And Modules
069WO1	WO	PCT/US2014/03405 7		Smart Photovoltaic Cells And Modules
070AU	AU	2012356174		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
070AU01	AU	2015210451		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
070JP	JP	2014-545999		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
070JPD1	JP	2017-70763		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
070KR	KR	10-2014-7020690		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
070MY	MY	P2014702373		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
070US0	US	13/725,169	9,337,374	High Productivity Spray Processing For The Metallization Of Semiconductor Workpieces

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
070US1	US	15/150,235		High Productivity Spray Processing For The Metallization Of Semiconductor Wafers
070USP	US	61/579,515		High-Productivity Atmospheric-Pressure Thermal Spray Processing Equipment For Solar Cell Metallization and Interconnects Applications
070WO	WO	PCT/US2012/07156 1		High Productivity Spray Processing For Semiconductor Metallization And Interconnects
071AU	AU	2012362505	2012362505	Systems And Methods For Enhanced Light Trapping In Solar Cells
071JP	JP	2014-550436		Systems And Methods For Enhanced Light Trapping In Solar Cells
071KR	KR	10-2014-702099/2	10-165454/8	Systems And Methods For Enhanced Light Trapping In Solar Cells
071US0	US	13/727,393	9,583,651	Systems And Methods For Enhanced Light Trapping In Solar Cells
071USP	US	61/580,250		Laser Texture Of Frontside And Backside Of Crystalline Silicon Solar Cells For Enhanced Trapping Of Solar Radiation
071WO	WO	PCT/US2012/07167 7		Systems And Methods For Enhanced Light Trapping In Solar Cells
072AU	AU	2014208227		Multi-Level Solar Cell Metallization
072AUD1	AU	2016265969		Multi-Level Solar Cell Metallization
072JP	JP	2014-550535		Multi-Level Solar Cell Metallization
072MY	MY	P2014702439		Multi-Level Solar Cell Metallization
072US0	US	13/731,112		Multi-Level Solar Cell Metallization
072USP	US	61/582,164		Structure And Method For Multi-Level Metallization Of Solar Cells
072WO	WO	PCT/US2012/07224 9		Multi-Level Solar Cell Metallization
073AU	AU	2013222069		Systems And Methods For Laser Splitting And Device Layer Transfer
073EP	EP	13752284.3		Systems And Methods For Laser Splitting And Device Layer Transfer
073JP	JP	2014-558952		Systems And Methods For Laser Splitting And Device Layer Transfer
073KR	KR	10-2014-702730/6		Systems And Methods For Laser Splitting And Device Layer Transfer
073US0	US	13/778,047	9,214,353	Systems And Methods For Laser Splitting And Device Layer Transfer
073USOC1	US	14/968,665		Systems And Methods For Laser Splitting And Device Layer Transfer
073USP	US	61/603,370		Laser Splitting Apparatus And Method For Device Layer Transfer
073WO	WO	PCT/US2013/02782 E		Systems And Methods For Laser Splitting And Device Layer Transfer
074USP	US	61/603,854		High Throughput Wafering Tool Using Laser Splitting And Separation Process
075AU	AU	2013225950		Structures And Methods For High Efficiency Compound Semiconductor Solar Cells
075JP	JP	2014-560066		Structures And Methods For High Efficiency Compound Semiconductor Solar Cells
075KR	KR	10-2014-702747/2		Structures And Methods For High Efficiency Compound Semiconductor Solar Cells
075US0	US	13/761,708		Structures And Methods For High Efficiency Compound Semiconductor Solar Cells
075USP	US	61/605,186		Structures And Methods For High-Efficiency Compound Semiconductor Solar Cells Based On A Reusable Silicon Template And Porous Silicon Lift-Off Platform

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
075WO	WO	PCT/US2013/02846 8		Structures And Methods For High Efficiency Compound Semiconductor Solar Cells
075WO-DNU	WO	PCT/US2013/02846 5		Structures And Methods For High Efficiency Compound Semiconductor Solar Cells
076USP	US	61/609,347		High Throughput Laser Splitting Tools And Processing Methods For Device Layer Transfer
077AU	AU	2013237811		Back Contact Solar Cells Using Aluminum-Based Alloy Metallization
077JP	JP	2015-503623		Back Contact Solar Cells Using Aluminum-Based Alloy Metallization
077KR	KR	10-2014-7036233		Back Contact Solar Cells Using Aluminum-Based Alloy Metallization
077US0	US	13/853,031		Back Contact Solar Cells Using Aluminum-Based Alloy Metallization
077USP	US	61/617,023		Manufacturing Methods Of Backcontact Thin Silicon Solar Cells With Printable Aluminum-Silicon Alloy Paste For Selective Emitter
077WO	WO	PCT/US2013/03450 3		Back Contact Solar Cells Using Aluminum-Based Alloy Metallization
078AU	AU	2013237892		End Point Detection For Back Contact Solar Cell Laser Via Drilling
078JP	JP	2015-503615		End Point Detection For Back Contact Solar Cell Laser Via Drilling
078US0	US	13/852,966		End Point Detection For Back Contact Solar Cell Laser Via Drilling
078USP	US	61/617,033		Real-Time Via Drilling End-Point Detection and Process Control During Laser Via Drilling of Backplane Used in High-Efficiency Crystalline Semiconductor Solar Cells
078WO	WO	PCT/US2013/03448 3		End Point Detection For Back Contact Solar Cell Laser Via Drilling
078AU	AU	20132389151		High Efficiency Solar Cell Structures And Manufacturing Methods
079JP	JP	2015-504686		High Efficiency Solar Cell Structures And Manufacturing Methods
079US0	US	13/855,657		High Efficiency Solar Cell Structures And Manufacturing Methods
079USP	US	61/619,300		High Efficiency Solar Cell Structures And Manufacturing Methods
079WO	WO	PCT/US2013/03302 9		High Efficiency Solar Cell Structures And Manufacturing Methods
080US0	US	13/866,993		Temperature Calibration And Control For Semiconductor Reactors
080USP	US	61/635,824		Temperature Calibration Method And Apparatus For Epitaxial Semiconductor Reactors
080WO	US	PCT/US2013/03748 1		Temperature Calibration And Control For Semiconductor Reactors
081JP	JP	2015-509090		Resistance Component Extraction For Back Contact Back Junction Solar Cells
081US0	US	13/868,967	6,828,784	Resistance Component Extraction For Back Contact Back Junction Solar Cells
081US1	US	14/479,540	9,461,582	Electrical Parametric Testing For Back Contact Semiconductor Solar Cells
081US2	US	15/284,475		Electrical Parametric Testing For Back Contact Semiconductor Solar Cells
081USP	US	61/637,126		Structures And Methods Of Resistance Component Extraction From Back Contacted/Back Junction Solar Cells

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DOCKET REFERENCE NUMBER	CHTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
081WO	WO	PCT/US2013/03786 3		Resistance Component Extraction For Back Contact Back Junction Solar Cells
082AU	AU	2013/272248		Manufacturing Methods And Structures For Large-Area Thin-Film Solar Cells And Other Semiconductor Devices
082USD	US	13/569,928		Manufacturing Methods And Structures For Large-Area Thin-Film Solar Cells And Other Semiconductor Devices
062USP	US	61/637,831		Manufacturing Methods And Structures For Large-Area Thin-Film Solar Cells And Other Semiconductor Devices
082WO	WO	PCT/US2013/03808 5		Manufacturing Methods And Structures For Large-Area Thin-Film Solar Cells And Other Semiconductor Devices
082WO1	WO	PCT/US2013/03808 1		Manufacturing Methods And Structures For Large-Area Thin-Film Solar Cells And Other Semiconductor Devices
063USP	US	61/638,474		High-Productivity Atmospheric-Pressure Thermal And Plasma Spray Processing Equipment For Solar Cell Metalization And Interconnect Applications
084AU	AU	2013/267461		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084AID1	AU	2016/200610		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084CN	CN	201380040222.X		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084EP	EP	13798110.6		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084JP	JP	2015-515163		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084KR	KR	10-2014-7036595	10-1528447	Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084MY	MY	P12014703566		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
084USD	US	13/905,113		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
064USP	US	61/652,833		Structures And Methods Of Formation Of Non-Contiguous Distributed Base And Emitter Contacts For High Efficiency Solar Cells
084WO	WO	PCT/US2013/04319 3		Structures And Methods Of Formation Of Contiguous And Non-Contiguous Base Regions For High Efficiency Back-Contact Solar Cells
065USP	US	61/696,725		Texture Structures And Methods For Producing Diffuse Rear Mirrors On The Backsides Of Crystalline Silicon Solar Cells For Enhanced Trapping Of Solar Radiation

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
066USP	US	61/709,477		Method and Apparatus for Compound Semiconductor Solar Cells by Device Layer Transfer with Laser Splitting
067AU	AU	2013331304	2013331304	Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067CN	CN	2013600592186	ZL2013800592186	Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067EP	EP	13647902.7		Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067JP	JP	2015-537832	6063577	Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067KR	KR	10-2015-7012565	10-1563651	Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067MY	MY	P2015000994		Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067USC	US	14/055,813	9,216,171	Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
067USC1	US	14/975,496		Systems And Methods For Monolithically Integrated Bypass Switches And Photovoltaic Solar Cells
067USP	US	61/714,723		Monolithically-Integrated Bypass Switch (MBS) For Distributed Shade Management And Enhanced Energy Yield In Photovoltaic Modules
067WO	WO	PCT/US2013/065316		Systems And Methods For Monolithically Integrated Bypass Switches In Photovoltaic Solar Cells And Modules
068AU	AU	2013337262		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068CN	CN	2013800692977		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068EP	EP	13650237.2		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068IN	IN	1444/MUMNP/2015		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068JP	JP	2015-540676		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068KR	KR	10-2015-7014622		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068MY	MY	P2015001179		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
068USC	US	14/072,759		Monolithic Isled (Tiled) Solar Cell (Cell) For Low-Cost High-Performance Photovoltaics Modules
068USC1T1	US	14/659,235		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells
068USC2T1	US	14/666,303		Monolithic Isled (Tiled) Solar Cell (Cell) For Low-Cost High-Performance Photovoltaics Modules
068USC2Can1	US	15/417,804		Monolithic Isled (Tiled) Solar Cell (Cells) For Low-Cost High-Performance Photovoltaics Modules
068USP	US	61/722,623		Monolithic Isled (Tiled) Solar Cell (Cells) For Low-Cost High-Performance Photovoltaics Modules
068WO	WO	PCT/US2013/068509		Systems And Methods For Monolithically Isled Solar Photovoltaic Cells And Modules

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
089JUS	US	61/725,434		Control And Optimization Of Via Drilling Of Backplane Used In High-Efficiency Crystalline Semiconductor Solar Cells Using Real-Time End-Point Detection During Laser Via Drilling Or In-Line Inspection Of Drilled Holes
090USP	US	61/725,981		Manufacturing Methods Of Backcontact Thin Silicon Solar Cells With Printable Aluminum-Silicon Alloy Paste For Selective Emitter
093CN	CN	2014600204647		Monolithically Isled Back Contact Back Junction Solar Cells Using Bulk Wafers
093KR	KR	10-2015-7025078		Monolithically Isled Back Contact Back Junction Solar Cells Using Bulk Wafers
093MY	MY	P/2015032026		Monolithically Isled Back Contact Back Junction Solar Cells Using Bulk Wafers
093USO	US	14/179,526	9,515,217	Monolithic Isled (Tiled) Solar Cell (cell) For Low-Cost High-Performance Photovoltaics Modules
093USP	US	61/763,580		Back Contact Back Junction Solar Cells Using Bulk Wafers
093WO	WO	PC7AJUS2014/01614 0		Monolithically Isled Back Contact Back Junction Solar Cells Using Bulk Wafers
094USP	US	61/764,210		PV Mounting System
095USP	US	61/764,217		PV Mounting System Utilizing Special MSR UV Protect Layer
096USP	US	61/764,229		Quick Mount PV Composition Mount
097USP	US	61/764,243		Photovoltaic Array Flashing
098USP	US	61/764,255		Photovoltaic Attachment Panel
099USP	US	61/764,264		PV Installation System
100USP	US	61/806,262		Method For Producing An Ultra Smooth Silicon Surface For Solar Cell Applications
101CN	CN	201480031613.X		Solar Photovoltaic Module Power Control And Status Monitoring System Utilizing Laminare-Embedded Remote Access Module Switch
101JP	JP	2016-507902		Solar Photovoltaic Module Power Control And Status Monitoring System Utilizing Laminare-Embedded Remote Access Module Switch
101MY	MY	P/2015703632		Solar Photovoltaic Module Power Control And Status Monitoring System Utilizing Laminare-Embedded Remote Access Module Switch
101USO	US	14/252,750		Solar Photovoltaic Module Power Control And Status Monitoring System Utilizing Laminare-Embedded Remote Access Module Switch
101USNO	US	14/428,598		Solar Photovoltaic Module Power Control And Status Monitoring System Utilizing Laminare-Embedded Remote Access Module Switch
101USP	US	61/811,736		Embedded Power Electronics For Smart Photovoltaic Modules
101WO	WO	PC7AJUS2014/03406 4		Solar Photovoltaic Module Power Control And Status Monitoring System Utilizing Laminare-Embedded Remote Access Module Switch
102MY	MY	P/2015703772		Solar Cell Metallization
102USO	US	14/260,272		Solar Cell Metallization
102USP	US	61/815,106		Bus-Bars And Metal 2 Exclusions For 2-Level Metallized Solar Cells

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
102WO	WO	PCT/US2014/03520 9		Solar Cell Metallization
103MY	MY	P/2015703888		Damage Free Laser Patterning Of Transparent Layers For Forming Doped Regions On A Solar Cell Substrate
103MYLA	MY	P/2015002647		Annealing For Damage Free Laser Processing For High Efficiency Solar Cells
103USHM	US	14/265,351		Damage Free Laser Patterning Of Transparent Layers For Forming Doped Regions On A Solar Cell Substrate
103USLA	US	14/265,331	9,214,585	Annealing For Damage Free Laser Processing For High Efficiency Solar Cells
103USLAC1	US	14/969,855		Annealing For Damage Free Laser Processing For High Efficiency Solar Cells
103USLAC1-DNP	US	14/969,672		Annealing For Damage Free Laser Processing For High Efficiency Solar Cells
103USNQH-M	US	14/787,858		Damage Free Laser Patterning Of Transparent Layers For Forming Doped Regions On A Solar Cell Substrate
103USP	US	61/816,830		Damage Free Laser Patterning Of Transparent Layers For High-Efficiency Crystalline Semiconductor Solar Cells
103WOHM	WO	PCT/US2014/03596 5		Damage Free Laser Patterning Of Transparent Layers For Forming Doped Regions On A Solar Cell Substrate
103WOLA	WO	PCT/US2014/03596 1		Annealing For Damage Free Laser Processing For High Efficiency Solar Cells
104MY	MY	P/2015704055		Solar Photovoltaic Blinds And Curtains For Residential And Commercial Buildings
104US0	US	14/275,869		Solar Photovoltaic Blinds And Curtains For Residential And Commercial Buildings
104USP	US	61/822,426		BIPV Solar Curtains And Blinds Using Flexible Thin Crystalline Semiconductor Solar Cells
104WO	WO	PCT/US2014/03774 6		Solar Photovoltaic Blinds And Curtains For Residential And Commercial Buildings
105USP	US	61/827,252		Pulsed Laser Processing For High Efficiency Crystalline Semiconductor Solar Cells
106MY	MY	P/2015704775		High-Throughput Thermal Processing Methods For Producing High-Efficiency Crystalline Silicon Solar Cells
106US0	US	14/321,802		High-Throughput Thermal Processing Methods For Producing High-Efficiency Crystalline Silicon Solar Cells
106USP	US	61/841,501		Enhanced-Throughput Thermal Processing Methods For Producing High-Efficiency Crystalline Silicon Solar Cells
106WO	WO	PCT/US2014/04516 9		High-Throughput Thermal Processing Methods For Producing High-Efficiency Crystalline Silicon Solar Cells
107US0	US	14/325,356		Passivation Methods For Achieving Ultra-Low Surface Recombination Velocities For High-Efficiency Solar Cells
107USP	US	61/843,429		Material Structures and Process Methods for High-Performance Surface Passivation of High-Efficiency Crystalline Silicon Solar Cells

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
107WO	WO	PCT/US2014/04563 0		Surface Passivation Of High-Efficiency Crystalline Silicon Solar Cells
108US0	US	14/326,461		Thin Film Solar Cell Lamination Stack For High Volume Manufacturing
108USP	US	61/843,849		Thin Crystalline Silicon Solar Cell Lamination Stack For High Volume Manufacturing
108WO	WO	PCT/US2014/04563 5		Thin Film Solar Cell Lamination Stack For High Volume Manufacturing
109USP	US	61/843,856		Backplane Attached Thin-Silicon Cells Using Multicrystalline Silicon Wafers
110USP	US	61/859,166		Pulsed Laser Processing For High Efficiency Crystalline Semiconductor Solar Cells
111USP	US	61/859,602		Structures and Manufacturing Methods for High-Efficiency, Thin Semiconductor Absorber, Back-Contact, Back-Junction Photovoltaic Solar Cells and Modules Using Bulk Wafers
112CN	CN	2014600433769		Laminated Backplane For Solar Cells
112KR	KR	10-2016-7005028		Laminated Backplane For Solar Cells
112USN0	US	14/903,273		Laminated Backplane For Solar Cells
112USP	US	61/860,216		Flexible Backplane Materials And Related Lamination Processes For Backplane-Attached High-Efficiency Solar Cells And Modules
112USS	US	14/447,597		Laminated Backplane For Solar Cells
112WO	WO	PCT/US2014/04898 9		Laminated Backplane For Solar Cells
112WO1	WO	PCT/US2014/04898 3		Laminated Backplane For Solar Cells
113USP	US	07868383.6		Structures And Manufacturing Methods For High Efficiency Solar Cells
114CN	CN	201480059502X		Monolithic Solar Cell Arrays And Fabrication Methods
114KR	KR	10-2016-7008511		Monolithic Solar Cell Arrays And Fabrication Methods
114MY	MY	P12016700686		Monolithic Solar Cell Arrays And Fabrication Methods
114US0	US	14/475,566		Monolithic Solar Cell Arrays And Fabrication Methods
114USP	US	61/872,035		Contiguous-Backplane-Attached Photovoltaic Module Structures and Manufacturing Methods Using Monolithic Cell-Level and Module-Level Metallization
114WO	WO	PCT/US2014/05375 9		Monolithic Solar Cell Arrays And Fabrication Methods
115CN	CN	2014800618816		Laser Processing For Solar Cell Base And Emitter Regions
115KR	KR	10-2016-7010013		Laser Processing For Solar Cell Base And Emitter Regions
115US0	US	14/480,263		Laser Processing For Solar Cell Base And Emitter Regions
115USP	US	61/878,573		Damage Free Laser Patterning Of Aluminum Oxide For Solar Cell Applications
115WO	WO	PCT/US2014/05596 4		Laser Processing For Solar Cell Base And Emitter Regions
116US0	US	14/493,341	9,379,258	Fabrication Methods For Back Contact Back Junction Solar Cells
116USOC1	US	15/193,107		Fabrication Methods For Back Contact Back Junction Solar Cells

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
116US1	US	14/493,335		Fabrication Methods For Back Contact Solar Cells
116USP	US	61/689,777		High-Efficiency, Thin-Crystalline-Silicon-Absorber Back-Contact Solar Cells And Manufacturing Methods
117US0	US	14/495,883		Photovoltaic Monolithic Solar Module Connection And Fabrication Methods
117USP	US	61/661,594		Monolithic Module Using Contiguous Backplane and Monolithic Cell and Module Metallization for Reduction of Installed Photovoltaic System Balance-Of-System (BOS) Wiring Cost
117USP1	US	62/140,397		Multi-Connector Junction Box
117USP1.1	US	62/140,408		Multi-Connector Junction Box
118USP	US	61/691,364		Surface Morphology Detection
119USP	US	61/695,326		Smart Photovoltaic Modules With Distributed Embedded Maximum Power Point Tracking (MPPT) For Enhanced Power Harvesting
120USP	US	61/698,504		Damage Free Laser Patterning Of Aluminum Oxide For Solar Cell Applications
121CN	CN	2014800726558		Dielectric-Passivated Metal Insulator Photovoltaic Solar Cells
121US0	US	14/538,760		Dielectric-Passivated Metal Insulator Photovoltaic Solar Cells
121USP	US	61/902,526		Multiple Dielectric Passivation Based Metal Insulator Semiconductor Solar Cells
121WO	WO	PCT/US2014/06509 1		Dielectric-Passivated Metal Insulator Photovoltaic Solar Cells
122CN	CN	201480072842E		Metal Foil Metallization For Backplane-Attached Solar Cells And Modules
122MY	MY	P2016701707		Metal Foil Metallization For Backplane-Attached Solar Cells And Modules
122US0	US	14/536,978		Metal Foil Metallization For Backplane-Attached Solar Cells And Modules
122USP	US	61/903,267		Multi-Level Metallization Structures And Methods for High-Efficiency Solar Cells
122WO	WO	PCT/US2014/06531 2		Metal Foil Metallization For Backplane-Attached Solar Cells And Modules
123MY	US	P2016501006		Aluminum Oxide Passivation For Solar Cells
123US0	US	14/557,096		Aluminum Oxide Passivation For Solar Cells
123US1	US	14/632,696		Aluminum Oxide Passivation And Damage Removal For Solar Cells
123USP	US	61/910,271		Al ₂ O ₃ Passivation For Back Contact Back Junction Solar Cells
123WO	WO	PCT/US2014/06794 6		Aluminum Oxide Passivation For Solar Cells
123WO1	WO	PCT/US2015/01777 3		Aluminum Oxide Passivation And Damage Removal For Solar Cells
124CN	CN	2014800743856		Passivated Contacts For Back Contact Back Junction Solar Cells
124KR	KR	10-2015-7017831		Passivated Contacts For Back Contact Back Junction Solar Cells
124US0	US	14/558,707		Passivated Contacts For Back Contact Back Junction Solar Cells
124US1	US	15/465,458		Passivated Contacts For Back Contact Back Junction Solar Cells
124USP	US	61/916,036		Insulator and Wide Bandgap Semiconductor Based Passivated Contacts
124WO	WO	PCT/US2014/06824 2		Passivated Contacts For Back Contact Back Junction Solar Cells
125US0	US	14/576,161		Single Passivated Contacts For Back Contact Back Junction Solar Cells

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125USP	US	61/917,919		Insulator and Wide Bandgap Semiconductor Based Passivated Contacts
125WO	WO	PCT/US2014/07132 2		Single Passivated Contacts For Back Contact Back Junction Solar Cells
126US0	US	14/582,090		Amorphous Silicon Passivated Contacts For Back Contact Back Junction Solar Cells
126USP	US	61/920,209		Amorphous Silicon Passivated (ASP) Contacts for Back Contact Back Junction Solar Cells
126WO	WO	PCT/US2014/07229 4		Amorphous Silicon Passivated Contacts For Back Contact Back Junction Solar Cells
127US0	US	14/582,142		Self Aligned Contacts for Monolithically Isled Back Contact Back Junction Solar Cells
127US1	US	14/582,168		Self Aligned Contacts For Back Contact Back Junction Solar Cells
127US2	US	14/582,177		Self Aligned Contacts for Solar Cells
127US3	US	15/464,186		Self Aligned Contacts for Solar Cells
127USP	US	61/920,271		Structures And Methods Of Forming Self Aligned Contacts For High Efficiency Back Contacted Solar Cells
127USP3	US	62/327,430		High-Efficiency Back-Contact Photovoltaic Solar Cell Structures And Manufacturing Process Flows
127WO	WO	PCT/US2014/07229 9		Self Aligned Contacts For Back Contact Back Junction Solar Cells
127WO1	WO	PCT/US2014/07230 1		Self Aligned Contacts For Back Contact Back Junction Solar Cells
128CN	CN	2015800137223		Discontinuous Emitter And Base Islands For Back Contact Solar Cells
128KR	KR	10-2016-7022085		Discontinuous Emitter And Base Islands For Back Contact Solar Cells
128US0	US	14/596,213		Discontinuous Emitter And Base Islands For Back Contact Solar Cells
128USP	US	61/926,852		Structures And Methods For Back-Contact Solar Cells Using Discontinuous Emitter And Base Islands
128WO	WO	PCT/US2015/01127 9		Discontinuous Emitter And Base Islands For Back Contact Solar Cells
129US0	US	14/601,202	8,130,676	Trench Isolation For Monolithically Isled Solar Photovoltaic Cells And Modules
129US0C1	US	14/846,537		Trench Isolation For Monolithically Isled Solar Photovoltaic Cells And Modules
129USP	US	61/929,097		Trench Isolation Structures And Manufacturing Process Methods For Monolithically Isled Solar Photovoltaic Cells And Modules
129WO	WO	PCT/US2015/01210 4		Trench Isolation For Monolithically Isled Solar Photovoltaic Cells And Modules
130USP	US	61/941,995		High-Efficiency Backplane-Attached Solar Cells Using High-Conductivity Metal-Foil Metallization
131USP	US	61/943,332		Smart Photovoltaic Modules Using Embedded Distributed MPPT Power Optimizers
132CN	CN	201580022322 6		Self Aligned Contacts For Back Contact Solar Cells
132EP	EP	15755082.3		Self Aligned Contacts For Back Contact Solar Cells
132JP	JP	2016-554365		Self Aligned Contacts For Back Contact Solar Cells
132KR	KR	10-2016-7026447		Self Aligned Contacts For Back Contact Solar Cells
132USP	US	61/945,116		Structures And Methods Of Forming Self Aligned Contacts For High Efficiency Back Contacted Solar Cells
132WO	WO	PCT/US2015/01785 2		Self Aligned Contacts For Back Contact Solar Cells

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133USP	US	61/945,126		A/203 Passivation For Back Contact Back Junction Solar Cells
134USP	US	62/010,880		Monolithic Module Cell To Cell Interconnection For Improved Fault Tolerance
135US0	US	14/817,185		Solar Cell Surface Passivation Using Photo-Anneal
135USP	US	62/032,414		Front Passivation Stabilization Using Photo-Chemical Anneal for Solar Cells
135WO	WO	PCT/US2015/04350 7		Solar Cell Surface Passivation Using Photo-Anneal
136US0	US	14/816,294		Impact Resistant Solar Cells
136USP	US	62/033,091		Impact Resistant Solar Cells
136WO	WO	PCT/US2015/04368 9		Impact-Resistant Photovoltaic Modules
137US0	US	14/825,163		Amorphous Silicon Based Laser Doped Solar Cells
137USP	US	62/036,609		Amorphous Silicon Based Laser Doped High Performance Solar Cell Structures And Methods
137WO	WO	PCT/US2015/04493 5		Amorphous Silicon Based Laser Doped Solar Cells
138US0	US	14/825,171		Rear Wide Band Gap Passivated (RGP) PERC Cell Architecture
138USP	US	62/037,054		Rear Wide Band Gap Passivated (RGP) PERC Cell Architecture
138WO	WO	PCT/US2015/04516 0		Rear Wide Band Gap Passivated Perc Solar Cells
139US0	US	14/829,635		Photovoltaic Solar Module Metallization And Distributed Shade Management Connection And Fabrication Methods
139USP	US	62/038,787		Macro Isled Cell And Monolithic Module Metallization
139WO	WO	PCT/US2015/04577 5		Photovoltaic Solar Module Metallization And Distributed Shade Management Connection And Fabrication Methods
140US1	US	14/841,690		Laser Doping For Making Back Contact Back Junction Solar Cells
140USP	US	62/044,312		Laser Doping Based Efficient Manufacturing Methods For Making High Efficiency Back Contacted Back Junction Solar Cells
140WO	WO	PCT/US2015/04783 7		Laser Doping For Making Back Contact Back Junction Solar Cells
141US0	US	14/843,991		Dual Level Solar Cell Metallization Having First Level Metal Busbars
141USP	US	62/044,997		Multiple Metal 1 Busbar Solutions For Solar Cells
141WO	WO	PCT/US2015/04821 1		Dual Level Solar Cell Metallization Having First Level Metal Busbars
141WO1	WO	PCT/US2015/04821 0		Dual Level Solar Cell Metallization Having First Level Metal Busbars
142US0	US	14/936,673		Temporary Field Assisted Passivation For Testing Of Partially Processed Photovoltaic Solar Cells
142USP	US	62/077,150		In-Line Test And Sort For Photovoltaic Monolithic Modules

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
142WO	WO	PCT/US2015/05979 6		Temporary Field Assisted Passivation For Testing Of Partially Processed Photovoltaic Solar Cells
143US0	US	14/837,861		Impact Resistant Lightweight Photovoltaic Modules
143USP	US	62/077,878		Impact Resistant Lightweight Module Design
143WO	WO	PCT/US2015/06004 6		Impact Resistant Lightweight Photovoltaic Modules
144USP	US	62/110,367		Macro-Cell And Monolithic Smart Module Metallization
144USP1	US	62/111,652		Macro-Cell And Monolithic Smart Module Metallization Designs
144USP2	US	62/117,418		Macro-Cell And Monolithic Smart Module Metallization Designs
144USP3	US	62/164,992		Macro-Cell And Monolithic Smart Module Metallization Designs
144WO	WO	PCT/US2016/01602 5		Shade Management Of Solar Cells And Solar Cell Regions
145USP	US	62/155,947		High-Performance Solar Photovoltaic Modules Using Distributed Shade Management SBRs And MPPT Power Optimizers
146USP	US	62/168,803		Photovoltaic Modules Using Embedded Blocking Diodes And Magnetic Reed Switches
147US0	US	15/172,146		Electroluminescence Testable Photovoltaic Modules Having Shade Management Solutions
147US1	US	15/172,149		Electroluminescence Testable Photovoltaic Modules Having Shade Management Solutions
147USP	US	62/170,100		High-Performance Solar Photovoltaic Systems Using Parallel-Connected Array Of High-Voltage Solar Modules
148US	US	15/202,557		Discrete Carrier Selective Passivated Contacts For Solar Cells
148USP	US	62/188,456		Discrete Carrier-Selective Passivated Contacts Using Silicon Nanoparticles For High-Efficiency Crystalline Silicon Solar Cells
148USP1	US	62/317,377		Discrete Carrier-Selective Passivated Contacts Using Silicon Nanoparticles For High-Efficiency Crystalline Silicon Solar Cells
148USP2	US	62/327,436		High-Efficiency Back-Contact Photovoltaic Solar Cell Structures And Manufacturing Process Flows
148USP2-DNP	US	62/327,424		High-Efficiency Back-Contact Photovoltaic Solar Cell Structures And Manufacturing Process Flows
148WO	WO	PCT/US2016/04101 6		Discrete Carrier Selective Passivated Contacts For Solar Cells
149USP	US	62/190,235		Landscape Macro-Cell And Monolithic Smart Module Metallization Designs
150P	US	62/202,749		Photovoltaic Module Mounting And Installation System (88e, inventors, ref# & assignee need to be checked on Private PAIR)
150P3	US	62/352,015		Solar Panel Mounting System
150US0	US	15/231,768		Photovoltaic Module Mounting And Installation System
150USP.1	US	62/257,695		Photovoltaic Module Mounting And Installation System (88e, inventors, ref# & assignee need to be checked on Private PAIR)
150USP2	US	62/301,978		Solar Module Mount

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
150WO	WO	PCT/US2016/04608 5		Photovoltaic Module Mounting And Installation System
151P1	US	62/172,269		Flash Lamp Annealing And Light Soaking Of Frontside Passivation Layer
151USP	US	62/202,799		Flash Lamp Annealing And Light Soaking Of Frontside Passivation Layer
152USP	US	62/202,776		Low Voltage Module
153USO	US	15/250,861		Solar Cell Current And Voltage Characteristic Measurement
153USO PY	US	15/250,895		Solar Cell Current And Voltage Characteristic Measurement
153USP	US	62/211,622		Method For Measuring Current/Voltage Characteristics Of A Solar Cell Under A Constant Temperature
153WO	WO	PCT/US2016/04933 3		Solar Cell Current And Voltage Characteristic Measurement
154USP	US	62/220,861		Second Level M2 Metallization Stack
155USP	US	62/221,553		Color-Adjusted Photovoltaic Modules Using Backplane-Laminated Monolithic Module Sheets, Backplane- Selective Powder Coating
156USP	US	62/257,698		Power Optimization For Solar Cells
156WO	WO	PCT/US2016/06320 9		Multi-Modal Maximum Power Point Tracking Optimization Solar Photovoltaic System
157USP	US	62/257,702		Smart Building-Integrated Photovoltaic (BIPV) Rooftop Tiles
158USP	US	62/265,953		Rear Contact and Infrared Mirrors for Back-Contact Solar Cells
158WO	WO	PCT/US2016/06624 3		Rear Contact And Infrared Mirror Structures And Manufacturing Methods For Back Contact Solar Cells
159USD	US	15/405,273		Solar Photovoltaic Module Remote Access Module Switch And Real-Time Temperature Monitoring
159USP	US	62/277,845		Real-Time Measurement Of Photovoltaic Module Temperature Using Remote-Access Module Switch (RAMS)
159WO	WO	PCT/US2017/01326 5		Solar Photovoltaic Module Remote Access Module Switch And Real-Time Temperature Monitoring
160USP	US	62/292,218		Smart Building Integrated Photovoltaic (BIPV) Rooftop Tiles And Shingles
161USP	US	62/302,796		Reduced Contact Area Contacts for Photovoltaic Solar Cells
162USP	US	62/401,857		Photovoltaic Module Mounting and Installation Systems
163USP	US	62/401,868		Reverse Current Protection, Electroluminescence (EL) Testability, and Flash Current-Voltage Testability Of Photovoltaic Modules Comprising MPPT Optimizers
163USP1	US	62/405,866		Reverse Current Protection, Electroluminescence (EL) Testability, And Flash Current-Voltage Testability Of Photovoltaic Modules Comprising MPPT Optimizers
164P	US	62/408,552		High-Performance IBC Solar Cell And Module Technology
165USP	US	62/438,467		Ballasted Fast Installation Solar Photovoltaic Systems
166USP	US	62/441,198		East West Orientation Solar Photovoltaic Systems
167USP	US	62/442,860		High-Performance Low-Cost Solar Photovoltaic Systems for Commercial and Industrial Rooftop Applications

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DOCKET REFERENCE NUMBER	CNTRY CODE	APPLICATION OR SERIAL NUMBER	PATENT NUMBER	TITLE
D1CN0	CN	201630628953.4		Mount Foot for Solar Panels
D1EP	EP	003526813-900		Mount Foot for Solar Panels
D1US0	US	29/568,494		Mount Foot for Solar Panels
D10US0	US	29/568,506		Solar Panel Array
D11CN0	CN	201630629186.7		Solar Panel Array
D11US0	US	29/568,507		Solar Panel Array
D11US01	US	29/568,508		Solar Panel Array
D12US0PY	US	29/568,511		Solar Panel Array
D13US0	US	29/568,509		Mount System for Photovoltaics
D14US0	US	29/568,510		Mount System for Photovoltaics
D15CN0	US	201630629207.5		Mount Foot for Solar Panels
D15US0	US	29/568,702		Mount Foot for Solar Panels
D15US1	US	29/568,836		Mount Foot for Solar Panels
D2US0	US	29/568,485		Mount Foot for Solar Panels
D3CN0	CN	201630629530.2		Mount Body for a Solar Panel
D3US0	US	29/568,487		Mount Body for a Solar Panel
D4US0	US	29/568,500		Mount Body for a Solar Panel
D5US0	US	29/568,489		Mount Body for a Solar Panel
D6CN0	CN	201630629964.2		Mount System for Photovoltaics
D6US0	US	29/568,502		Mount System for Photovoltaics
D7US0	US	29/568,503		Mount System for Photovoltaics
D8CN0	CN	201630629962.X		Mount System for Photovoltaics
D8US0	US	29/568,504		Mount System for Photovoltaics
D9CN	CN	201630629956.8		Solar Panel Array
D9US0	US	29/568,505		Solar Panel Array
JD1	US	13/210,083	8,092,746	Anodizing Apparatus
JD1AJP	JP	2010-269416		Anodizing Apparatus
JD1BJP	JP	2010-269417		Anodizing Apparatus
JD1C1	US	14/673,611		Anodizing Apparatus
JDdaihippon2	US	13/688,645		Anodizing Apparatus, An Anodizing System Having The Same, And A Semiconductor Wafer
JDdaihippon2CN	CN	201210505374.X	ZL201210505374.X	Anodizing Apparatus, An Anodizing System Having The Same, And A Semiconductor Wafer
JDdaihippon2JP	JP	2011-262421	5908266	Anodizing Apparatus, An Anodizing System Having The Same, And A Semiconductor Wafer

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