

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
MIASOLE	08/28/2012

RECEIVING PARTY DATA

Name:	PINNACLE VENTURES, L.L.C.
Street Address:	1600 El Camino Real, Suite 250
City:	Menlo Park
State/Country:	CALIFORNIA
Postal Code:	94025

PROPERTY NUMBERS Total: 176

Property Type	Number
Patent Number:	6231732
Patent Number:	6974976
Patent Number:	7544884
Patent Number:	7785921
Patent Number:	7838863
Patent Number:	7897020
Patent Number:	7927912
Patent Number:	7935558
Patent Number:	7960643
Patent Number:	7829783
Patent Number:	7963802
Patent Number:	8004232
Patent Number:	8017976
Patent Number:	8048706
Patent Number:	8048707

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Patent Number:	8058752
Patent Number:	8062384
Patent Number:	8076174
Patent Number:	8110738
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Patent Number:	8123565
Patent Number:	8134069
Patent Number:	8203200
Patent Number:	8227287
Patent Number:	6365010
Application Number:	13525593
Application Number:	13529317
Application Number:	61624171
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Application Number:	12272600
Application Number:	12264712
Application Number:	12121602
Application Number:	12052476
Application Number:	12049159
Application Number:	11812515
Application Number:	11512415
Application Number:	11451616
Application Number:	11451604

CORRESPONDENCE DATA

Fax Number: 6504936811
Phone: 650-496-7543
Email: nbouch@wsgr.com
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.
Correspondent Name: WSGR, c/o Nancy Bouch, Senior Paralegal
Address Line 1: 650 Page Mill Road
Address Line 2: FH 2-1 P10
Address Line 4: Palo Alto, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	23769.056 PINNACLE
NAME OF SUBMITTER:	Nancy Bouch

Total Attachments: 16
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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of August 28, 2012, is made by MiaSolé (“Grantor”), in favor of Pinnacle Ventures, L.L.C., as agent (in such capacity, “Agent”) for Lenders (as defined in the Loan Agreement referred to below).

RECITALS

A. Pursuant to the Loan and Security Agreement, dated as of December 24, 2010 (as the same may be amended, restated, supplemented or otherwise modified from time to time, the “Loan Agreement”), by and among Grantor, Agent and the lenders signatory thereto (“Lenders”), Agent and Lenders have agreed to make certain financial accommodations to Borrower upon the terms and subject to the conditions set forth therein.

B. Pursuant to the Loan Agreement, Grantor has granted to Agent (for the benefit Agent and Lenders) a Lien upon all the present and future rights, title, and interest that such Grantor may now have or hereafter acquire in all Intellectual Property.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and to induce Agent and Lenders to enter into the Loan Agreement, Grantor hereby agrees with Agent as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Loan Agreement.

Section 2. Grant of Security Interest in Intellectual Property Collateral. Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Obligations of Grantor, hereby mortgages, pledges and hypothecates to Agent for the benefit of Agent and Lenders, and grants to Agent, for the benefit of Agent and Lenders, a Lien on all of its right, title and interest in, to and under the following Collateral of such Grantor (the “Intellectual Property Collateral”):

(a) all of its Copyrights providing for grant by or to such Grantor of any right under any Copyright, including, without limitation, those referred to on Schedule 1 hereto, together with all renewals, reversions and extensions thereof;

(b) all of its Patents providing for grant by or to such Grantor of any right under any Patent, including, without limitation, those referred to on Schedule 1 hereto, together with all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect thereto, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof;

(c) all of its Trademarks providing for grant by or to such Grantor of any right under any Trademark, including, without limitation, those referred to on Schedule 1 hereto, together with all renewals and extensions thereof, and all goodwill of the business connected with the use of, and symbolized by, each such Trademark; and

(d) all income, royalties, Proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof.

Section 3. Loan Agreement. The Lien granted pursuant to this Intellectual Property Security Agreement is granted in conjunction with the Lien granted to Agent pursuant to the Loan Agreement and Grantor hereby acknowledges and agrees that the rights and remedies of Agent with respect to the Lien in the Intellectual Property Collateral made and granted hereby are more fully set forth in the Loan Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

Section 4. Grantor Remains Liable. Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall assume full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with their Intellectual Property and Licenses subject to a Lien hereunder.

Section 5. Power of Attorney.

(a) Grantor hereby irrevocably appoints Agent (and any of Agent's designated officers, agents or employees) as Grantor's true and lawful attorney to modify, in Agent's sole discretion, this Intellectual Property Security Agreement without first obtaining Grantor's approval of or signature to such modification by amending **Schedule 1** to this Intellectual Property Security Agreement, as appropriate, to include reference to any right, title or interest in any Intellectual Property Collateral acquired by such Grantor before or after the execution hereof or to delete any reference to any right, title or interest in any Intellectual Property Collateral in which Grantor no longer has or claims to have any right, title or interest. The appointment of Agent as Grantor's attorney in fact, and each and every one of Agent's rights and powers, being coupled with an interest, is irrevocable until all of the Obligations have been fully repaid and performed and Lenders' obligation to provide credit extensions to Grantor is terminated.

(b) During the continuance of an Event of Default, subject to the terms of the Loan Agreement, Agent shall have the right, but shall in no way be obligated, to bring suit in Agent's name to enforce any Grantor's rights in the Intellectual Property Collateral. If Agent commences any such suit, such Grantor shall, at Agent's request, do all lawful acts and execute and deliver all proper documents or information that may be necessary or desirable to aid Agent in such enforcement. Such Grantor shall promptly, upon demand, reimburse and indemnify Agent for all of Agent's costs and expenses, including reasonable attorneys' fees, related to Agent's exercise of the above mentioned rights.

Section 6. Counterparts. This Intellectual Property Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart. Delivery of an executed counterpart of a signature page to this Intellectual Property Security Agreement by facsimile or electronic transmission shall be effective as delivery of a manually executed counterpart thereof.

Section 7. Governing Law. This Intellectual Property Security Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of California.

[Signature pages follow]

IN WITNESS WHEREOF, each Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

"Grantors"

MIASOLÉ

By: [Signature]
Name: [Signature]
Title: [Signature]

ACCEPTED AND AGREED
as of the date first above written:

"Agent"

PINNACLE VENTURES, L.L.C.

By: _____
Name:
Title:

IN WITNESS WHEREOF, each Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

"Grantors"

MIASOLÉ

By: _____
Name: _____
Title: _____

ACCEPTED AND AGREED
as of the date first above written:

"Agent"

PINNACLE VENTURES, L.L.C.

By: Robert N. Savoie
Name: Robert N. Savoie
Title: Chief Operating Officer

SCHEDULE 1
TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT

COPYRIGHTS

Registered Copyrights



None

Copyright Applications

None

TRADEMARKS AND TRADEMARK APPLICATIONS

Registered Trademarks

Jurisdiction	Trademark	Registration No. and Serial No.
United States	 MIASOLÉ	Reg. No.: 3366602 Serial No.: 78463195
United States	 MiaSolé	Reg. No.: 3800940 Serial No.: 77757136
European Community	MIASOLÉ	Reg. No.: 8622094
United States	MIASOLÉ	Reg. No.: 3826461 Serial No.: 77979734
United States	c-Si PERFORMANCE AT THIN-FILM COST	Reg. No.: Serial No.: 85387068

Trademark Applications

Jurisdiction	Trademark	Registration No. and Serial No.
United States	MIASOLÉ	Serial No.: 77795281
China	MIASOLÉ	Serial No.: 7792924
China	MIASOLÉ	Serial No.: 7792925

China	MIASOLÉ	Serial No.: 7792926
China	MIASOLÉ	Serial No.: 7792927

PATENTS AND PATENT APPLICATIONS

Registered Patents

Patent Number	Patent Name	Jurisdiction
6,231,732	Cylindrical Carriage Sputtering System	US
6,974,976	Thin-Film Solar Cells	US
7,544,884	Manufacturing Apparatus and Method for Large-Scale Production of Thin-Film Solar Cells	US
7,785,921	Barrier for Doped Molybdenum Targets	US
7,838,863	Manufacturing Method for Large-Scale Production of Thin-Film Solar Cells	US
7,897,020	Method for Alkali Doping of Thin Film Materials	US
7,927,912	Barrier for Doped Molybdenum Targets	US
7,935,558	Sodium salt containing CIG targets	US
7,960,643	Isolated Metallic Flexible Back Sheet for Solar Module Encapsulation	US
7,829,783	Isolated Flexible Backsheet	US
7,963,802	External Electrical Connectors for Solar Modules	US
8,004,232	Method of Battery Charging and Power Control in Conjunction with Maximum Power Point Tracking	US
8,017,976	Barrier for Doped Molybdenum Targets	US
8,048,706	Ablative Scribing of Solar Cell Structures	US
8,048,707	Sulfur salt containing target and sulfur containing CIGS absorber	US
8,058,752	Thin-film Photovoltaic Power Element with Integrated Low-profile High-efficiency DC-DC Converter	US
8,062,384	Systems, Methods and Apparatuses For Magnetic Processing of Solar Modules	US
8,076,174	Method of Forming a Sputtering Target	US
8,110,738	Protective Layer for Large-scale Production of Thin-film Solar Cells	US
8,115,095	Protective Layer for Large-Scale Production of Thin-Film Solar Cells	US
8,123,565	External Electrical Connectors for Solar Modules	US
8,134,069	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials	US
8,203,200	Diode Leadframe for Solar Module Assembly	US

Patent Number	Patent Name	Jurisdiction
8,227,287	Partially Transmitted Imaged Laser Beam for Scribing Solar Cell Structures	US
6,974,976	Thin-Film Solar Cells	US
NI-250658	Manufacturing Apparatus and Method for Large-Scale Production of Thin-Film Solar Cells	Taiwan
ZL03825443.3	Manufacturing Apparatus and Method for Large-Scale Production of Thin-Film Solar Cells	China
ZL200910126433.0	Manufacturing Apparatus and Method for Large-Scale Production of Thin-Film Solar Cells	China
21 2008 000 087.3	Photovoltaic Devices Protected From Environment	Germany
EP1868250	Photovoltaic Module with Integrated Current Collection and Interconnect	Europe (Germany, UK, Italy, France)
175978	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials	Singapore

Patent Licenses

Patent No.	Title	Jurisdiction	Owner
6,365,010	Sputtering Apparatus and process For High Rate Coatings	United States	Precis Design

Patent Applications

Application #	Filing Date	Jurisdiction	Title
13/525,593	07/03/12	US	Dielectric Coating on Rotary Target Backing Tube Ends to Prevent Arcing in A Poisoned Process
13/529,317	06/21/12	US	Flexible Photovoltaic Application with Stiffener Tabs
61/624,171	04/13/12	US	Flexible Attachments of Module Connectors to Flexible Photovoltaic Modules
61/624,180	04/13/12	US	Back Side Sheets for into Flexible Photovoltaic Modules
61/624,188	04/13/12	US	Edge Integrated Module Connectors for Flexible Photovoltaic Modules
13/41,305	03/07/12	US	PHOTOVOLTAIC MODULE WITH IMPROVED MOISTURE PROTECTION LAYER
10741668.7	03/01/12	EP	Thin-film Photovoltaic Power Element with integrated Low-profile High-efficiency DC-DC Converter
13/362,727	01/31/12	US	EXTERNAL ELECTRICAL CONNECTORS FOR SOLAR MODULES

Application #	Filing Date	Jurisdiction	Title
13/362,952	01/31/12	US	HIGH SPEED ALIGNING OF PHOTOVOLTAIC CELLS
10794649.3	01/26/12	EU	EXTERNAL ELECTRICAL CONNECTORS FOR SOLAR MODULES
13/345,040	01/06/12	US	Electrical Routing Structures for Building Integrable Photovoltaic Arrays
13/338,481	12/28/11	US	Building Integrable Photovoltaic Sub-Arrays Having Intermediate Inverters
13/334,296	12/22/11	US	Manufacturing Apparatus and Method for Large-scale Production of Thin-film Solar Cells
61/578,504	12/21/11	US	Photovoltaic Cell with High Efficiency CIGS Absorber Layer with Low Minority Carrier Lifetime and Method of Making Thereof
13/324,902	12/13/11	US	Integrated Jumpers for Building Integrable Photovoltaic Modules
2001-7025860	12/12/11	KR	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials
13/323,241	12/12/11	US	Magnetron with Gradually Increasing Magnetic Field Out of Turnarounds
13/802,202	11/30/11	US	Low Voltage Building Integrable Photovoltaic Structures and Configurations
61/561,981	11/21/11	US	Na Concentration in Plasma as Metric/Control of Field Power Loss in Thin Film Solar Cells
13/298,178	11/16/11	US	Building Integrable Photovoltaic Flexible Connectors for Enclosed Jumper Attachment
10764942.8	11/10/11	EP	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials
PI 2011005424	11/10/11	MY	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials
61/557,768	11/09/11	US	METHODS AND APPARATUSES FOR CUTTING OF THIN FILM SOLAR CELLS
61/557,010	11/08/11	US	Solar Panel with Integrated Mounting Clip / Shipping Support
13/251,333	10/21/11	US	Thin-Film Photovoltaic Power Element with Integrated Low-Profile High-Efficiency DC-DC Converter
13/277,441	10/20/11	US	Filter Circuit for a Magnetron Deposition Source
13/277,509	10/20/11	US	Building Integrated Photovoltaic Panel with Built-In Electrical Interconnect
PCT/US2011/ 056704	10/19/11	WO	Salt Containing CIG Targets, Methods of Making and Methods of Use Thereof
PCT/US2011/	10/18/11	WO	Sodium Salt Containing CIG Targets, Methods of Making and

Application #	Filing Date	Jurisdiction	Title
056689			Methods of Use Thereof
PCT/US2011/ 056637	10/18/11	WO	RETAINERS FOR ATTACHING PHOTOVOLTAIC MODULES TO MOUNTING STRUCTURES
PCT/US11/56 432	10/14/11	WO	Ablative Scribing of Solar Cell Structures
13/269,771	10/10/11	US	Solar Cell With Multilayer Absorber
13/251,333	10/03/11	US	Thin-Film Photovoltaic Power Element with Integrated Low- Profile High-Efficiency DC-DC Converter
PCT/2011/053 972	09/29/11	WO	PHOTOVOLTAIC MODULE SUPPORT WITH CABLE CLAMPS
13/247,187	09/28/11	US	Low Residue Cold Spray Nozzle
PCT/US2011/ 053382	09/27/11	WO	THIN FILM PHOTOVOLTAIC MODULES WITH STRUCTURAL BONDS
13/243,005	09/23/11	US	Enamel Coating of Alloys to Reduce High Temperature Selenium Corrosion
PCT/US2011/ 052974	09/23/11	WO	SMALL GAUGE WIRE SOLAR CELL INTERCONNECT
not avail.	09/20/11	EP	Protective Layer for Large-Scale Production of Thin-Film Solar Cells
13/234,454	09/16/11	US	Building Integrable Photovoltaic Structures Having Field- Configurable Shapes
13/233,912	09/15/11	US	SYSTEMS, METHODS AND APPARATUSES FOR MAGNETIC PROCESSING OF SOLAR MODULES
13/233943	09/15/11	US	Systems, Methods and Apparatuses for Magnetic Processing of Solar Modules
13/234,088	09/15/11	US	Ablative Scribing of Solar Cell Structures
13/230,305	09/12/11	US	Protective Layer for Large-Scale Production of Thin-Film Solar Cells
13/228,872	09/09/11	US	Method and Apparatus for Controllable Sodium Delivery
2011-7021045	09/08/11	KR	Protective Layer for Large-Scale Production of Thin-Film Solar Cells
13/223,826	09/01/11	US	Composition and Method of Forming an Insulating Layer in a Photovoltaic Device
13/219,832	08/29/11	US	Impermeable PVD Target Coating for Porous Target Materials
13/207,198	08/10/11	US	Nanoparticle Enhanced Solar-Cell Absorber Efficiency
13/204552	08/05/11	US	Multiple Cells Per Diode
13/198,539	08/04/11	US	Attachment Structures for Building Integrable Photovoltaic Modules

Application #	Filing Date	Jurisdiction	Title
PCT/US11/46 277	08/02/11	WO	Gallium-Containing Transition Metal Thin Film for CIGS Nucleation
PCT/US11/44 257	07/15/11	WO	COMPOSITE ENCAPSULANTS CONTAINING FILLERS FOR PHOTOVOLTAIC MODULES
13/175,752	07/01/11	US	PHOTOVOLTAIC MODULE SUPPORT ASSEMBLY WITH STANDOFF CLAMPS
13/173,507	06/30/11	US	Manufacturing Apparatus and Method for Large-Scale Production of Thin-Film Solar Cells
13/173,407	06/30/11	US	Photovoltaic Device with Resistive CIGS Layer at the Back Contact
PCT/US11/40 894	06/17/11	WO	Flexible Photovoltaic Modules in a Continuous Roll
13/159,570	06/14/11	US	Emergency Off Button With Proximity Alarm
13/114,999	05/24/11	US	Apparatuses and Methods for Fabricating Wire Current Collectors and Interconnects for Solar Cells
13/108749	05/16/11	US	Supporting Structures for Building Integrable Photovoltaic Modules
13/107,574	05/13/11	US	Isolated Metallic Flexible Back Sheet for Solar Module Encapsulation
09825215.8	05/11/11	EP	COMBINED DIODE, LEAD ASSEMBLY INCORPORATING AN EXPANSION JOINT
13/091,989	04/21/11	US	Combination Photovoltaic and Wind Power Generation Installation
13/087724	04/15/11	US	WIRE NETWORK FOR INTERCONNECTING PHOTOVOLTAIC CELLS
13/087,730	04/15/11	US	INTERCONNECTING WIRE NETWORK WITH CONDUCTIVE TAB
13/085,838	04/13/11	US	Electrostatic Probes for Mapping Conductive Web Bagginess
13/085268	04/12/11	US	Base Sheet Integrated Photovoltaic Roof Assemblies
13/085274	04/12/11	US	THERMOPLASTIC WIRE NETWORK SUPPORT FOR PHOTOVOLTAIC CELLS
13/084,297	04/11/11	US	SOLAR-CELL MODULE WITH IN-LAMINATE DIODES AND EXTERNAL-CONNECTION MECHANISMS MOUNTED TO RESPECTIVE EDGE REGIONS
13/082709	04/08/11	US	Adhesives for Attaching Wire Network to Photovoltaic Cells
13/073,159	03/28/11	US	Sodium Salta Containing CIG Targets, Method of Making and Use Thereof
13/072,512	03/25/11	US	Photovoltaic Module With Increased Active Area
13/046461	03/11/11	US	Integrating Electrical Connectors into Photovoltaic Modules

Application #	Filing Date	Jurisdiction	Title
13/046453	03/11/11	US	Separable Flexible Photovoltaic Connector
13/043,227	03/08/11	US	FLEXIBLE CONNECTORS FOR BUILDING INTEGRATED PHOTOVOLTAICS
13/043225	03/08/11	US	Interlocking Edge with Integrated Electrical Connectors for Photovoltaic Modules
13/042317	03/07/11	US	Photovoltaic Shingle Electrical Connectors
13/042320	03/07/11	US	Photovoltaic Shingle Electrical Connectors
13/042325	03/07/11	US	Photovoltaic Module Pin Electrical Connectors
13/039706	03/03/11	US	Interlocking Lips on Photovoltaic Module Edges
13/038,611	03/02/11	US	Sensing Local Target Selenization Optically
13/028,670	02/16/11	US	Photovoltaic Powered Aircraft Window Insert
13/019,671	02/02/11	US	Utilization of an Air Amplifier to Remove Sheets of Paper from Glass in an Automated Glass Handler
61/438078	01/31/11	US	High Speed Aligning of Photovoltaic Cells
61/436,195	01/26/11	US	Sputtering Target Assembly and Manufacturing Method
13/013,692	01/25/11	US	Method of Making an Alkalai Doped Transition Metal Target for Sputtering in Photovoltaic Modules
13/006,098	01/13/11	US	Continuous Web Apparatus and Method Using an Air-to-Vacuum Seal and Accumulator
PCT/US11/20048	01/03/11	WO	Photovoltaic Materials with Controllable Zinc and Sodium Content and Method of Making Thereof
12/979,824	12/28/10	US	Taping Applying Apparatus and Method
PCT/US/2010/061234	12/20/10	WO	Shielding of Interior Diode Assemblies from Compression Forces in Thin-Film Photovoltaic Modules
12/951,711	11/22/10	US	Method of Weaving and Rolling Interconnect Wire on to Thin Film Solar Cells
PCT/US2010/057327	11/19/10	WO	Diode Leadframe for Solar Module Assembly
12/938,656	11/03/10	US	Photovoltaic Device and Method and System for Making Photovoltaic Device
12/915882	10/29/10	US	Apparatus and Method for Securing Wire to Decal
61/405,208	10/21/10	US	Filter Circuit for Magnetron Deposition Source
12/908,788	10/20/10	US	Improvements to Adhesive-Mounted Frameless Photovoltaic Panels
12/907,783	10/19/10	US	Method of Making a CIG Target by Spray Forming
12/907,670	10/19/10	US	Method of Making a CIG Target by Gravity Casting
12/907,169	10/19/10	US	Method of Making a CIG target by Cold Spraying

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12/907,551	10/19/10	US	Sulfur Salt Containing n-Type Window Layer
12/907762	10/19/10	US	Cu Poor Top Absorber Layer
2010-7023367	10/19/10	KR	Interconnect Assembly
12/904,944	10/14/10	US	Dithered Scanned Laser Beam for Scribing Solar Cell Structures
12/904,958	10/14/10	US	Excimer Laser Scribing of Solar Cell Substrate
3771/KOLNP/ 2010	10/08/10	IN	Interconnect Assembly
61/391,420	10/08/10	US	Solar Cell With Multilayer Absorber
12/894,894	10/04/10	US	SMALL GAUGE WIRE SOLAR CELL INTERCONNECT
12/894,736	09/30/10	US	Thin Film Photovoltaic Modules with Structural Bonds
12/894,704	09/30/10	US	PHOTOVOLTAIC MODULE SUPPORT WITH ELASTOMER
12/895,328	09/30/10	US	PHOTOVOLTAIC MODULE SUPPORT CLAMP ASSEMBLY
12/895,340	09/30/10	US	PHOTOVOLTAIC MODULE SUPPORT WITH CABLE CLAMPS
12/895,594	09/30/10	US	PHOTOVOLTAIC MODULE SUPPORT WITH INTERFACE STRIPS
12/894,894	09/30/10	US	SMALL GAUGE WIRE SOLAR CELL INTERCONNECT
2,718,518	09/15/10	CA	Interconnect Assembly
PCT/US10/48 599	09/13/10	WO	Method of Making an Electrically Conductive Cadmium Sulfide Sputtering Target for Photovoltaic Manufacturing
12/880,003	09/10/10	US	Panel Clearing Mechanism
61/371,697	08/08/10	US	Flat Panel Packaging System
12/850,190	08/04/10	US	MoCuGa Thin Film Layer For CIGS Nucleation
PCT/US10/43 429	07/27/10	WO	CTE Modulated Encapsulants for Solar Modules
12/843,648	07/26/10	US	High Melting Point Wire Coatings for High Current Tolerance in Thin Film Solar Cells
12/842,865	07/23/10	US	Polishing a Metal Substrate with Fixed Abrasive Filament Brushes
PCT/US10/36 039	07/22/10	WO	Method of Battery Charging and Power Control in Conjunction with Maximum Power Point Tracking
12/837867	07/16/10	US	Conductive Ink Coated Decals for Solar Cells
12/838,365	07/16/10	US	Composite Encapsulants Containing Fillers for Photovoltaic Modules
12/836,073	07/14/10	US	System and Method for Reducing Deposition on a View Port of

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			a Deposition Chamber
12/835562	07/13/10	US	Manufacturing Apparatus and Method for Large-Scale Production of Thin- Film Solar Cells
12/835,573	07/13/10	US	Manufacturing Apparatus and Method for Large-Scale Production of Thin- Film Solar Cells
PCT/US2010/040426	06/29/10	WO	External Electrical Connectors for Solar Modules
12/824,605	06/28/10	US	Flexible / Semi-Rigid Solar Modules With A Thin Glass Coated With A Planarizing Hardcoat
12/824,662	06/28/10	US	Flexible / Semi-Rigid Solar Modules With A Thin Glass Coated With An Inorganic-Organic Hybrid Film
12/824,646	06/28/10	US	Flexible / Semi-Rigid Solar Modules With A Thin Glass Coated With A Shear Thickening Film
12/824,607	06/25/10	US	Energy Absorbing Materials for Solar Module Construction
212008000087.3	06/22/10	DE	Photovoltaic Devices Protected from the Environment
12/820,455	06/22/10	US	Laser Polishing of a Solar Cell Substrate
12/820,489	06/22/10	US	Laser Polishing of a Back Contact of a Solar Cell
12/820,522	06/22/10	US	Textured Substrate for a Solar Cell
12/820,560	06/22/10	US	Na Incorporation in Solar Substrate and Contacts
12/820408	06/22/10	US	Electrical Connectors for Flexible Solar Sheet
12/820415	06/22/10	US	Flexible Photovoltaic Modules in a Continuous Roll
12/819,124	06/18/10	US	Power-Loss-Inhibiting Current Collector Having Transparent Current Regulator
12/797565	06/09/10	US	Glass Barrier for Diode Assemblies
PTO/US10/37486	06/04/10	WO	Systems, Methods and Apparatuses for Magnetic Processing of Solar Modules
PCT/US2010/036039	05/25/10	WO	Method of Battery Charging and Power Control in Conjunction with Maximum Power Point Tracking
PCT/US10/34386	05/11/10	WO	Isolated Metallic Flexible Back Sheet for Solar Module Encapsulation
PCT/US2010/030694	04/12/10	WO	Polishing a Thin Metallic Substrate for a Solar Cell
PCT/US/2010/030454	04/09/10	WO	Method for Alkali Doping of Thin Film Photovoltaic Materials
PCT/US2010/030456	04/09/10	WO	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials
PCT/US10/30	04/09/10	WO	Barrier for Doped Molybdenum Targets

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12/726,731	03/18/10	US	Solar Cell Having a Transparent Conductive Oxide Contact Layer with an Oxygen Gradient
12/726,731	03/18/10	US	Solar Cell Having a Transparent Conductive Oxide Contact Layer with an Oxygen Gradient
PCT/US2010/027291	03/15/10	WO	Composition and Method of Forming an Insulating Layer in a Photovoltaic Device
12/716,174	03/02/10	US	Controlled Emissivity Re-Emitter for Radiant Heating in Vacuum
12/733,257	02/19/10	US	Photovoltaic Device with a Luminescent Down-Shifting Material
PCT/US10/24406	02/17/10	WO	Protective Layer for Large-scale Production of Thin-film Solar Cells
PCT/US10/23756	02/10/10	WO	Thin-Film Photovoltaic Power System with Integrated Low-Profile High-Efficiency Inverter
PCT/US10/23766	02/10/10	WO	Thin-film Photovoltaic Power Element with integrated Low-profile High-efficiency DC-DC Converter
12/687,754	01/14/10	US	Apparatuses and Method for Fabricating Wire Current Collectors and Interconnects for Solar Cells
12/654,808	01/05/10	US	Photovoltaic Materials with Controllable Zinc and Sodium Content and Method of Making Thereof
12/644,324	12/22/09	US	Diode Rail System for Photovoltaic Module
12/644,360	12/22/09	US	Shielding of Interior Diode Assemblies from Compression Forces in Thin-Film Photovoltaic Modules
12/639,346	12/16/09	US	Oriented Reinforcement for Frameless Solar Modules
12/654,185	12/14/09	US	Semiconductor Device and Method of Making Thereof
12/626,378	11/25/09	US	Freestanding Heater for Radiant Heating in Vacuum
12/626,281	11/25/09	US	Diode Leadframe for Solar Module Assembly
12/588,578	10/20/09	US	CIG Sputtering Target and Methods of Making and Using Thereof
12/588,579	10/20/09	US	Method of Making a CIG Target by Die Casting
12/888,963	09/24/09	US	Cooling Water Jet Pack for High Power Rotary Cathodes
12/566,555	09/24/09	US	Interconnect Assembly
12/563,138	09/20/09	US	Method of Making an Electrically Conductive Cadmium Sulfide Sputtering Target for Photovoltaic Manufacturing
12/560,253	09/15/09	US	In-Situ Web IV Tester
12/558,355	09/11/09	US	Detachable Inverter
12/558,336	09/09/09	US	Rotatable J-box

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12/550,314	08/28/09	US	Integrated Frame for Control of Vacuum Lamination
12/544,984	08/20/09	US	Solar Panel Interconnection System
12/539,054	08/11/09	US	Modulating Polymer Shrinkage to Improve Module Reliability
12/537,260	08/07/09	US	Automated Solar Module Testing
12/461,053	07/30/09	US	Method for Alkali Doping of Thin Film Photovoltaic Materials
12/460,847	07/24/09	US	Energy Transfer Through Coupling From Photovoltaic Modules
12/483,509	06/12/09	US	Systems, Methods and Apparatuses For Magnetic Processing of Solar Modules
12/478,553	06/04/09	US	Thin Film Solar Cells and Methods and Apparatuses for Cutting Same
12/455,398	05/30/09	US	Cold Lift-Off Test for Strength of Film Stack Subjected to Thermal Loading
12/385,572	04/13/09	US	Method and Apparatus for Controllable Sodium Delivery for Thin Film Photovoltaic Materials
12/422,620	04/13/09	US	Polishing a Thin Metallic Substrate for a Solar Cell
12/382,498	03/17/09	US	Composition and Method of Forming an Insulating Layer in a Photovoltaic Device
09721573.5	02/27/09	EP	Interconnect Assembly
12/379,196	02/13/09	US	Thin-Film Photovoltaic Power System with Integrated Low-Profile High-Efficiency Inverter
12/314,519	12/11/08	US	Photovoltaic Devices Protected from Environment
12/272,600	11/17/08	US	Power-Loss-Inhibiting Current-Collector
12/264,712	11/04/08	US	Combined Diode, Lead Assembly Incorporating an Expansion Joint
97127171.00	07/17/08	TW	Photovoltaic Device with a Luminescent Down-Shifting Material
97126574.00	07/11/08	TW	Photovoltaic Modules with Integrated Devices
97126580.00	07/11/08	TW	Photovoltaic Module with Integrated Energy Storage
97126581.00	07/11/08	TW	Rooftop Photovoltaic Systems
97122763.00	06/18/08	TW	Photovoltaic Module Utilizing an Integrated Flex Circuit and Incorporating a Bypass Diode
097118953	05/22/08	TW	High Rate Sputtering Apparatus and Method
12/121,602	04/15/08	US	Solar Cell Module with In-laminate Diodes and External Connection Mechanisms Mounted to Respective Edge Regions
12/052,476	03/20/08	US	Interconnect Assembly
12/049,159	03/14/08	US	Smoothing a Metallic Substrate for a Solar Cell

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96148115.00	12/14/07	TW	Photovoltaic Module Utilizing a Flex Circuit for Reconfiguration
11/812,515	06/19/07	US	Photovoltaic Module Utilizing and Integrated Flex Circuit and Incorporating a Bypass Diode
11/512,415	08/30/06	US	Laminated Photovoltaic Cell
11/451,616	06/13/06	US	Photovoltaic Module With Integrated Current Collection and Interconnection
11/451604	06/13/06	US	Photovoltaic Module With Insulating Interconnect Carrier
3759511.30	09/24/03	EP	Manufacturing Apparatus and Method for Large-Scale Production of Thin-Film Solar Cells
200910126433 .00	09/24/03	CN	Manufacturing Apparatus and Method for Large-scale Production of Thin-film Solar Cells