

# inter solar

connecting solar business

NORTH AMERICA

PV PRODUCTION AND TECHNOLOGY



July 10–12, 2012

North America's Premier  
Exhibition and Conference for the Solar Industry  
Moscone North, San Francisco

Co-located with  
**SEMICON**<sup>®</sup>  
West2012

[www.intersolar.us](http://www.intersolar.us)



PHOTO: Opportunities at the 2011 exhibition were plentiful as visitors filled the halls across the three days.

## INTER SOLAR NORTH AMERICA – THE PREMIER EXHIBITION FOR PV MANUFACTURING

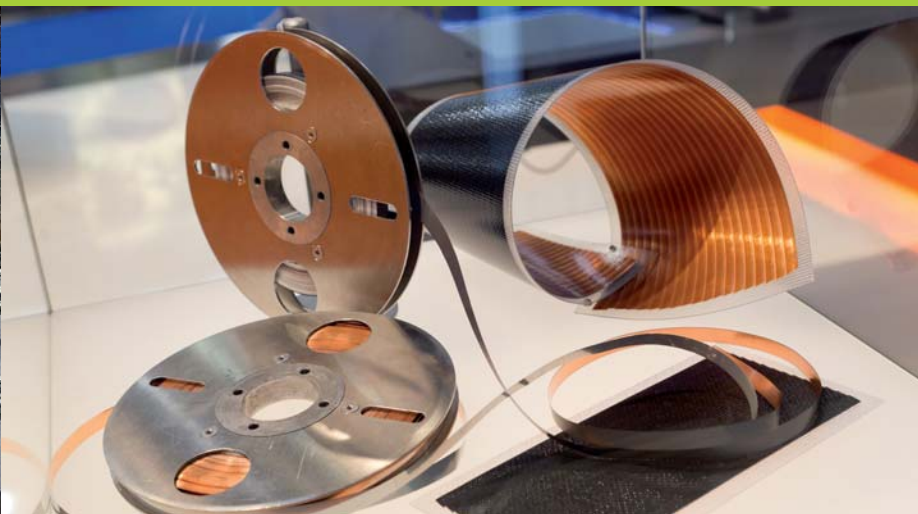
Intersolar North America has attracted an increasingly high number of global visitors with a targeted interest in PV manufacturing. In 2012, in order to meet the strong demand for this important segment, we are pleased to offer a dedicated PV Production and Technology exhibition space located in Moscone North for PV Production and Technology.

OPPORTUNITY – This is a unique opportunity for networking across all segments of the PV manufacturing supply chain.

VALUE – The concentration of exhibits, programs and visitors is designed to create synergies where challenges and future success drivers will be addressed by the PV manufacturing community.

FOCUS – Highly-targeted PV manufacturing and technology programs will attract leaders, decision makers, and other professionals from the PV manufacturing community.

JOIN US – Join the leaders in PV Production and Technology!



**PHOTOS:** PV manufacturing materials are an integral and important part of Intersolar North America.

## | PV MANUFACTURING AT INTERSOLAR NORTH AMERICA

**Exhibits** – The concentration of exhibits, programs and visitors is designed to create exciting and valuable synergies where critical challenges and future success drivers will be addressed by the PV manufacturing community.

**Programs** – PV Production and Technology programs feature live presentations led by industry experts focused on manufacturing and technology challenges, such as how to increase throughput and efficiency while lowering costs in a production fab environment.

**Visitors** – There is no better place to be closer to your customers. Intersolar North America is a must-attend event on the exhibition calendar if you are a supplier of one or more of the products or services listed.

## | SEMI PV GROUP

SEMI PV Group is a co-organizer of the Intersolar North America exhibition and conference. Their professional background and global member community ensures the right topics for the conferences and other related events are addressed. SEMI is the global industry association with more than 40 years of experience serving the nano- and microelectronics manufacturing industries. The SEMI PV Group represents SEMI member companies involved in the solar energy supply chain.

SEMI members are the engine of the future, enabling smarter, faster and more economical products that improve our lives. SEMI maintains offices in Beijing, Bengaluru, Berlin, Brussels, Grenoble, Hsinchu, Moscow, San Jose, Seoul, Shanghai, Singapore, Tokyo, and Washington, D.C.

## | PRODUCTS AND SERVICES

- Automation Technology
- Consumables
- Equipment and Machinery
- Feedstock and Wafers
- Handling and Packaging
- Integrators / Assemblers for Production Lines
- Laser and Opto-electronic Devices
- Solar Glass
- Software
- Thin Film Manufacturing
- Test and Measuring Technology
- Gases and Chemicals

## I PV PRODUCTION AND TECHNOLOGY EXHIBITORS IN 2011

3S Modultec | c/o 3S Swiss Solar Systems AG | 3S Photovoltaics | c/o 3S Swiss Solar Systems AG | 3T & Associates, Inc. | 4JET Sales + Service GmbH | 5N Plus Inc. **A** A.I. Technology Inc. | Abet Technologies Inc. | ADCO Products, Inc. | Adhesives Research, Inc. | Air Liquide Electronics U.S. LP | Air Products | Airgas | Alcatel Vacuum Products, Inc. | all4-GP (North America) Inc. | Allied Advanced Materials Co., Ltd. | AMB Automation | c/o AMB Apparate + Maschinenbau GmbH | Amtech - Tempres | Amtech Systems Inc. | Angstrom Sciences, Inc. | Arkema Inc. | Asahi Diamond America, Inc. | ASYS Group Americas Inc. | Atonometrics, Inc. | Austin Chamber of Commerce **B** Beckhoff Automation | Bekaert Advanced Coatings NV | Bekaert Sawing Wire | Belt Technologies Inc. | Beneq Oy | Brooks Instrument | Bruker Nano Surfaces Division | Busch LLC **C** Carl Zeiss MicroImaging, LLC | Carmel Chemicals Inc. | centrotherm photovoltaics USA Inc | CH2M Hill | ChemTrace, a Division of Quantum Global Technologies, LLC | Christopher Associates Inc. | Crest Ultrasonics/Megasonic Sweeping | Custom Milling and Consulting Inc. | CVD Equipment Corporation **D** Daikin America, Inc. | Datapaq, Inc. | Decker Anlagenbau GmbH | DEK Solar | Diamond Wire | c/o Diamond Materials Technologies Inc. | Dockweiler AG | Dow Corning | DUNMORE Corporation | Dynamesh, Inc **E** EBARA Technologies Incorporated | EBNER Furnaces, Inc. | Edax Inc. | Edwards | EKO Instruments USA Inc. | Elmet Technologies | EMD Chemicals Inc | ENF Business Consulting (WUHU) Co. Ltd | Engineered Conductive Materials | Entegris, Inc. | ESPEC North America, Inc. | Evans Analytical Group | Evergreen Engineering **F** Ferro Electronic Materials | Festo Corporation | Fisnar | FlexLink Systems, Inc. | Fluor | Foamtec International WCC | Fortrend Engineering **G** Gebr. Schmid GmbH + Co. | Gemü Valves, Inc. | Genco Ltd | General Vacuum Equipment Ltd. | GfE Materials Technology, Inc. | GNB Corporation **H** Heateflex Corporation | Henkel Corporation | Hennecke Systems | Heraeus Materials Technology LLC | Heritage Global Partners | Hermann Otto GmbH | Hisco | Hitachi High Technologies America | HORIBA STEC Co., Ltd | HUETTINGER Electronic, Inc. and TRUMPF, Inc. **I** IKO International, Inc. | Indium Corporation | InnoLas, Inc | Intevac, Inc. | ixmation NORTH AMERICA **J** Jonas & Redmann Photovoltaics Production Solutions GmbH | JRT Photovoltaics GmbH & Co. KG **K** k-Space Associates, Inc. | Kanematsu USA Inc | Kashiyama | Kayex | KLA-Tencor | Konica Minolta Sensing Americas | Krempel GmbH | Kurabo Industries Ltd. | Kurdex Corporation | Kurt J. Lesker Co. **L** LayTec in-line GmbH | Leybold Optics USA Inc. | Linde Electronics & Speciality Gases LLC | Lisec Maschinenbau GmbH | LumaSense Technologies, Inc. | Lumimax Optoelectronic Technology | Luvata Appleton **M** M+W Group | MAG | Manz USA, Inc. | Maschinenbau Gerold GmbH & Co. KG | MATHESON | MB Automation GmbH | MB Services | | c/o Meyer Burger Technology AG | MB Wafertec c/o Meyer Burger AG | MBT Systems Ltd. | Meier Solar Solutions GmbH | Metallix Refining Inc. | Meyer Burger Technology AG | MGI Electronics LLC | Micro-Vu Corporation | Miyachi Unitek Corporation | Monocrystal | Morgan AM & T | Multek Flexible Circuits Inc. **N** Nanometrics Incorporated | Nanosurf Inc. | Newport Corp. | Nordson EFD LLC | NovaCentrix | NV Bekaert SA **O** OAI | Oerlikon Leybold Vacuum | Omron Industrial Automation **P** Pall Corporation | Parker Hannifin Corporation | Pasan SA | PerkinElmer, Inc. | Pfeiffer Vacuum | Plansee USA LLC | Praxair Electronics | Process Materials Inc. | ProTech Materials Inc. | PVA TePla America Inc. **R** R2D Automation | Raytek Corporation | REC ASA | Reis Robotics USA Inc. | Rena GmbH | Rudolph Technologies, Inc. **S** Saint-Gobain Solar | Sandvik Materials Technology | Sanmina-SCI | SAP S.L. | Schiller, LLC. | SCI Engineered Materials | SEMI PV Group | Semilab SDI LLC | Sensor Electronics Corporation | Setra Systems, Inc. | Shimadzu Scientific Instruments, Inc. | Shin-Etsu Silicones | Shizuishan Ronghuayuan Metallurgy Co., Ltd | Sierra Therm Production Furnances, Inc. | Singulus Technologies AG | SKC Solmics | SKC, Inc. Photovoltaic Business | Smartech International LP | SMC Corporation of America | Smit Ovens B.V. | Solar Metrology | Solartron Analytical | Soleras Ltd. | SOMONT GmbH | Specialized Technology Resources (STR) Solar Division | Spire Corporation | Stud Welding Products, Inc | Surface Modification Systems, Inc. | Synova **T** TDK-Lambda Americas | teamtechnik Corp. | tec5USA, Inc. | Technica USA | Testbourne Limited | Thermal Conductive Bonding | Torrey Hills Technologies, LLC | Toshiba Mitsubishi-Electric Industrial Systems Corporation | Tosoh SMD, Inc. | Toyo Tanso | TRUMPF Inc. **U** Ultrasonic Systems, Inc. | Umicore Thin Film Products | US Silicon Valley Quartz, Inc. **V** Vacuum Process Technology | Valtech Corporation | VAT | Voltaix, LLC | VWR | Vytek **W** White Knight Fluid Handling Inc. | Wilden Pump / ALMATEC | Wooil High Tech Co., Ltd. **X** XYG Glass **Y** Yinchuan LONGI Silicon Materials Co, Ltd. | Yole Developpement **Z** Zeta Instruments Inc. | Zygo Corporation

"I have been attending Intersolar

Show for the last four years and the SEMICON West since 1994 and this year the quality of the people attending was the highest I have ever experienced."

OEM Manufacturer

"Seeing the growth over the last few years is exciting for the industry! I do like to see the technologies and new products."

Inverter Manufacturer

"High concentration of industry players who are interested in advancing the solar industry."

Mounting Systems Manufacturer

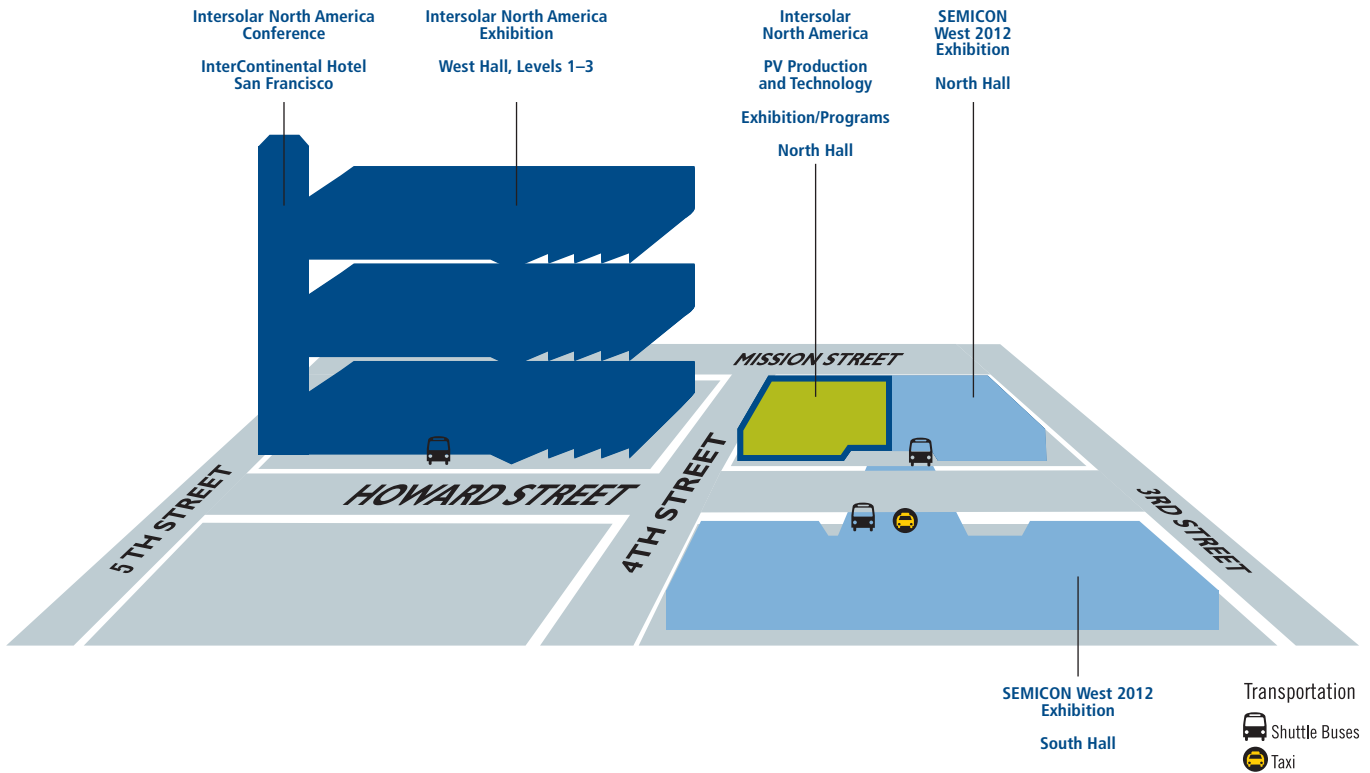
"I like the fact that it is linked to SEMICON West. Many visitors from solar have worked in semiconductor industry. Important to maintain the links, i.e., cell process development."

Integrated Solar Manufacturer

"Traffic to booth was higher than expected."

Module Manufacturer

## EVENT VENUES



## PV PRODUCTION AND TECHNOLOGY AT INTERSOLAR NORTH AMERICA

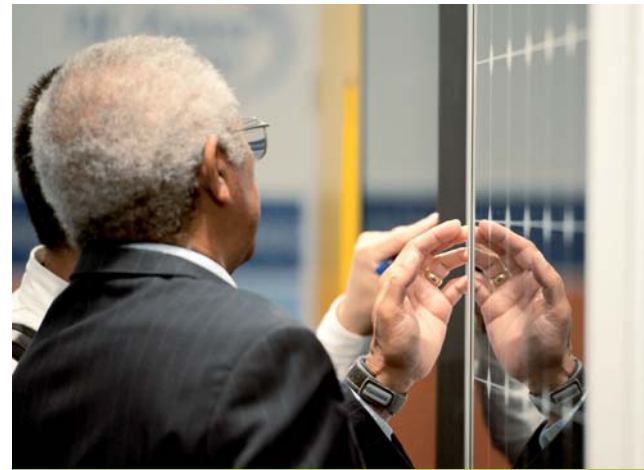
### PV Manufacturing Equipment

- Ingots, Wafers
- Feedstock
- Cells
- Modules
- Thin Film
- Integration and Automation
- Inspection and Metrology

### PV Materials and Components

- Ingots, Wafers
- Feedstock
- Consumables (Paste, Wires, etc.)
- Gases and Liquid Chemicals
- Solar Glass, Encapsulation
- Others

PHOTO: Intersolar North America – Connecting Solar Business



## **| PV PRODUCTION AND TECHNOLOGY EVENTS AT INTERSOLAR NORTH AMERICA**

### **PV Production and Technology Programs**

The presentations delivered on the exhibit floor at the PV Production and Technology Hall Innovation Exchange Stage will focus on the real, critical issues and current challenges for both today's PV manufacturing plants and tomorrow's technology advancements. Topics for these presentations are being developed with guidance from stakeholder committees. Attendees have full access to the presentations on the exhibit floor.

### **Featured Topics include:**

#### **PV Manufacturing in the U.S. – A Vision for the Future**

Beyond policy and the financial constraints of today, this program reveals the shape of the industry structure of the future from manufacturing to energy production, where value and performance become the new paradigm.

#### **International Standards on PV Module Quality & Reliability**

SEMI PV Group and AIST will share current and projected plans for a new, international PV module quality and reliability program and standards.

#### **PV EHS & Sustainability (EHS&S) in Manufacturing**

This program covers the state of the industry today and offers a roadmap for universal EHS&S compliance.

#### **Scaling Thin Film PV Technology to Bankability – Supply Chain and Manufacturing Challenges**

This program addresses what manufacturing, technology, supply chain advances are needed to improve bankability and market share.

#### **Global PV R&D**

This program showcases current and future activities along with details on how companies/industry can collaborate.

#### **New Materials in PV Manufacturing – Dye Sensitized, Organic, Hybrid**

Often referred to as 'third generation' thin film, these technologies offer the potential to be produced from low-cost materials using simple manufacturing processes (coating/printing).

### **Advanced Photovoltaics, Ultra-High-Efficiency Technologies**

Recent technology and manufacturing advances in GaAs, CPV, multijunction solar cells, etc., are presented in this program.

### **PV Technology Roadmap**

The CTM (Crystalline Cell Technology and Manufacturing) Group presents the latest findings from the International Technology Roadmap for PV effort. The CTM Group is a special interest group of SEMI PV Group.

### **Who will attend?**

PV cell and module manufacturing teams, operations managers, technical management, lead and chief engineers, purchasing managers, PV research and development engineers, equipment, software and service suppliers, and other PV professionals involved in manufacturing. The programs and presentations provide the venue and information for research and production industry professionals to learn about technology and industry challenges and how accelerating innovative solutions will drive PV industry growth.

### **PV Manufacturing Standards Workshops and Meetings**

SEMI is the recognized leader in manufacturing standards – standards created by the industry, for the industry, to address manufacturing cost drivers, operational excellence, safety and other critical aspects.

### **SEMI North American PV Fab Managers Forum**

The forum presents a much needed opportunity for manufacturers and suppliers to come together and identify challenges and supply chain bottlenecks that are best addressed collectively as 'supply chain partners' and continue the dialogue to move the needle in the right direction for accelerated solar energy deployment in the U.S. and around the world.

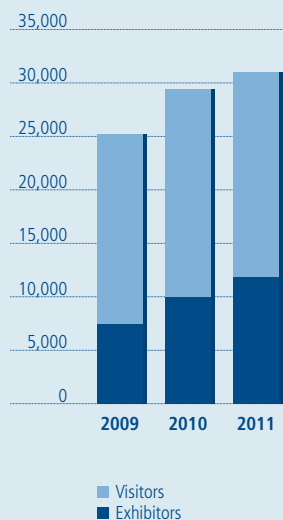
## EXHIBITION QUICK FACTS

Dates	July 10–12, 2012
Hours	Tuesday July 10, 2012 10:00am–5:00pm Wednesday July 11, 2012 10:00am–5:00pm Thursday July 12, 2012 10:00am–4:00pm
Venue	Moscone Center, 747 Howard Street San Francisco, CA 94103
Exhibitors	950 (expected)
Exhibition Space	200,000 net square feet
Visitors	22,000+

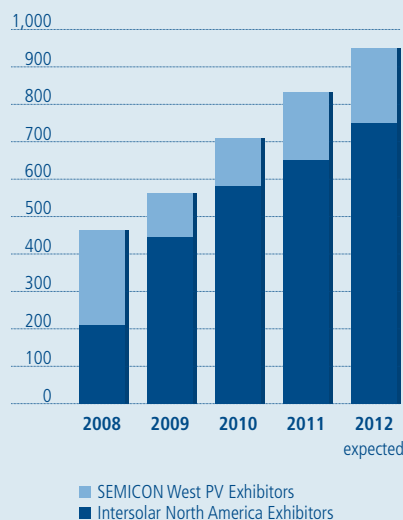
## CONFERENCE QUICK FACTS

Dates	July 9–12, 2012
Hours	Monday July 9, 2012 9:00am–6:00pm Tuesday July 10, 2012 9:00am–6:00pm Wednesday July 11, 2012 9:00am–6:00pm Thursday July 12, 2012 9:00am–6:00pm
Venue	InterContinental Hotel San Francisco 888 Howard Street, San Francisco, CA 94103
Attendees	1,600 (expected)
Topics	Photovoltaics Solar Thermal Technologies Utility-Scale Solar Technologies

### Total Attendance of the Exhibition



### Intersolar North America Exhibitors



Organizers



Freiburg Management Marketing International



SEMI PV Group



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