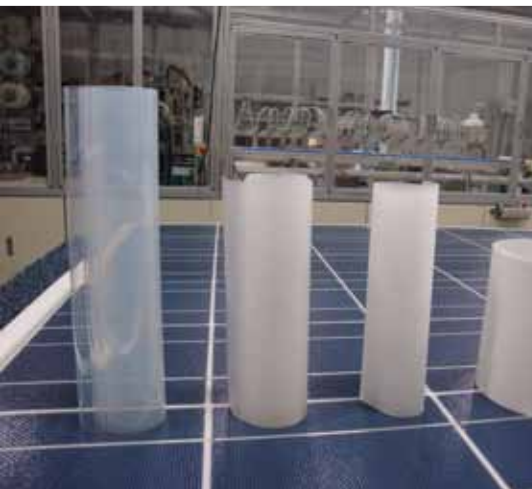


PLASTICS IN PHOTOVOLTAICS

2011

The international technology and business conference on plastics, adhesives and elastomeric materials in solar modules



September 20-21, 2011

*The Hilton City Avenue,
Philadelphia, PA, USA*

Images courtesy of: **SBM Solar Inc. and Georgia Institute of Technology**

SPECIAL OFFER: Save \$190 if you register before August 12, 2011

Organized by:
Applied Market
Information LLC.



Sponsored by:



Media supporters:



PLASTICS IN PHOTOVOLTAICS 2011

C O N F E R E N C E

Tuesday, September 20, 2011

8:00 Registration and welcome coffee
9:00 Opening announcements

MARKET OVERVIEW

9:10 Review of polymer use in photovoltaics
Dr. Michael Kempe, Sr. Scientist,
NATIONAL RENEWABLE ENERGY LABORATORY, United States

SESSION 1 - BACKSHEETS AND FRONTSHEETS

9:40 **A comparison of the performance of tetrafluoroethylene based coating on PET versus fluorinated and non-fluorinated backsheets**
Mr. Ken Milam, Applications Development Engineer,
DAIKIN AMERICA INC., United States

10:10 **A little off the top: lightweight fluoropolymer front sheets in crystalline silicon photovoltaic modules**
Ms. Gowri Dorairaju, Research Engineer,
SAINT-GOBAIN PERFORMANCE PLASTICS, United States

10:40-11:10 Coffee break sponsored by:



11:10 **Innovative coextruded flexible PP based backsheets with integrated PE adhesive**
Ir. Francois Rummens, Quality Research and Technical Support
Manager,
RENOLIT BELGIUM N.V., Belgium

11:40 **Durability testing and performance of PVDF films developed for photovoltaic module backsheets and frontsheets**
Dr. Amy Lefebvre, Research Scientist,
ARKEMA INC., United States

12:10-1:40 Lunch

SESSION 2 - TESTING AND CERTIFICATION

1:40 **Safety concerns with new PV materials**
Ms. Crystal Vanderpan, Principal Engineer,
UNDERWRITERS LABORATORIES INC., United States

2:10 **Linking accelerated laboratory and outdoor exposure results for polymeric materials in photovoltaics**
Dr. Xiaohong Gu, Materials Research Engineer,
NIST, United States

2:40 **The environmental durability of PV modules – qualification v. weatherability testing**
Mr. Allen F. Zielnik, Senior Consultant – Weathering Science,
ATLAS MATERIAL TESTING TECHNOLOGY, AN AMETEK COMPANY,
United States

3:10-3:40 Coffee break sponsored by:



SESSION 3 - MANUFACTURING TECHNOLOGY

3:40 **A potential 1GW crystalline silicon based photo-voltaic (PV) module production line – the significant contribution of polymers**
Dr. Ronald F.M. Lange, CEO,
9-OM, Switzerland

September 20-21, 2011, The Hilton City Avenue,
Philadelphia, PA, USA

AMI's Plastics in Photovoltaics 2011 conference is slated for September 20-21 at the Hilton City Avenue, in Philadelphia, PA. This premiere North American conference comprises a technical and market program of industry speakers and will cover the use of polymer materials in the expanding global photovoltaic power market.

Polymers are in use as back and front sheets, encapsulants, thin film substrates, high performance seals, silicon substitutes in "organic" photovoltaics, adhesives, glass laminate, glass substitute, solar concentrators, and other components of solar power systems. There are numerous performance challenges ranging from weathering, fire retardancy and heat extremes to intercompatibility of materials. However, standards and test protocols are in use and are under review for the solar power industry to ensure long service life and weatherability.

The solar module industry needs to make economies in manufacturing to become more cost-effective and more sustainable without subsidies. New manufacturing equipment is under development, as well as innovations in polymer materials for module components. Researchers are testing alternative materials and processing equipment. A wide range of polymers are being examined to meet different performance requirements: for example, the flexibility is of particular use in building integrated photovoltaics.

AMI's Plastics in Photovoltaics 2011 Conference will provide a unique networking and sourcing opportunity for module manufacturers, solar power companies, polymer and processing experts, and suppliers to the industry.

CONFERENCE HOTLINE

Contact: Amanda Schaeffer, Conference Coordinator
Contact: Margit Korsak, Conference Director
Tel: +1 610 478 0800
Fax: +1 610 478 0900
E-mail: as@amiplastics-na.com

FIVE GOOD REASONS WHY YOU SHOULD ATTEND:

1. Source components for photovoltaic manufacturing
2. Learn about new trends in photovoltaic materials and technology
3. Review the marketplace
4. Benchmark your company against other leading players
5. Network with other professionals in the photovoltaics industry

4:10 **Game-changing surface pre-treatment technology for photovoltaic plastics**

Mr. Rory Wolf, Vice President Business Development, ENERCON INDUSTRIES CORPORATION, United States

4:40 **Extrusion dies for photovoltaic module packaging films and sheets**

Mr. Olivier Catherine, Corporate Scientist, CLOEREN INCORPORATED, United States

5:10-6:40 Cocktail Reception

Wednesday, September 21, 2011

8:30 Welcome coffee

9:00 Opening announcements

SESSION 4 - ENCAPSULANT

9:10 **New PVB encapsulant addresses solar panel discoloration**

Mr. Christopher L. Reed, Global Business Director, Photovoltaics, SOLUTIA INC., United States

9:40 **Polyolefins for use in photovoltaic applications**

Dr. Adriana S. Silva, Staff Engineer, EXXONMOBIL CHEMICAL CO., United States

10:10 **Extrusion of encapsulant polymers**

Ms. Christine Ronaghan, Senior Process Engineer, DAVIS-STANDARD LLC, United States

10:40-11:10 Coffee break sponsored by:



11:10 **Nanostructured transparent polymer materials with multifunctional properties for encapsulation of PV modules**

Ms. Elena Shembel, President & CEO, ENERIZE CORPORATION

SESSION 5 - POLYMER INNOVATIONS

11:40 **Polymer applications on non glass c-Si cell modules**

Dr. Osbert Cheung, President, SBM SOLAR INC., United States

12:10 **Interface engineering in organic photovoltaics: towards all polymeric devices**

Dr. Bernard Kippelen, Professor, Director of COPE, GEORGIA INSTITUTE OF TECHNOLOGY, United States

12:40-2:10 Lunch

2:10 **Guideline for successful selection of material components for PV modules**

Mr. Karlheinz Brust, Technical Director, KREMPEL GmbH SOLAR MATERIALS, United States

2:40 **UV curing process and materials' performance**

Mr. Joshua Oliver, Manager, UV Specialty Applications, SARTOMER USA, LLC., United States

3:10 Afternoon wrap up and questions

3:30 Conference ends

AMI reserves the right to alter the program without notice. The latest program including any new speakers or changes to schedules can be viewed on our website www.amiconferences-na.com

Save \$190

Register before August 12th, 2011 and save \$190

PLASTICS IN PHOTOVOLTAICS 2011:

SPONSOR THIS EVENT

A variety of sponsorship opportunities are available at this conference to help to promote and enhance your company's products and services to this highly targeted international audience. Contact the conference hotline for further information.

CONFERENCE VENUE

Philadelphia is on the East Coast with a major international airport and in easy reach of New York and Washington, DC. The city sights include historic buildings, shopping malls, and beautiful parks. It is a multicultural experience with many types of dining & entertainment offered.

HOTEL ACCOMMODATION

Delegates are responsible for booking their own accommodation. AMI has negotiated a room rate of \$139 at the Hilton City Avenue. To reserve a room please contact the hotel directly and state that you are attending "AMI's Plastics in Photovoltaics 2011 conference".

Tel: +1 215 879 4000

Address: 4200 City Avenue, Philadelphia, PA 19131, United States

Organized by:

APPLIED MARKET INFORMATION LLC



Applied Market Information LLC is the North American operation of Applied Market Information Ltd, Europe's leading supplier of plastics consultancy and information services to the global plastics industry. AMI LLC can offer the full range of AMI services and products to North American clients. Together with our well-established European-based operations this means AMI is well placed to provide a truly global research capability to our clients.

Based in Reading PA, Applied Market Information LLC can supply all of AMI's European directories and CDs and is developing a whole new range of products for the North American market. Its range of specialized services cover individual consulting services, multi-client reports, conferences and publishing.

To find out more about AMI's conference program or any of our other services and products visit our web site at:

www.amiplastics-na.com

or call the AMI LLC office at: +1 610 478 0800 or

e-mail: mk@amiplastics-na.com

