

ADVANCE PROGRAM AND REGISTRATION ON-LINE: WWW.IMAPS.ORG/ENERGY

IMAPS International Conference on **Alternative Energy**

ALBUQUERQUE EMBASSY SUITES HOTEL AND SPA
ALBUQUERQUE, NM 87102
JANUARY 16 - 18, 2007

General Chair:

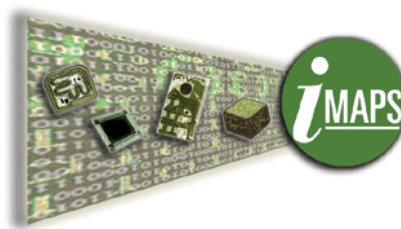
Roupen Keusseyan, DuPont Electronic Technologies
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Technical Program Chairs:

Barbara Landini, FlipChip International LLC
barb.landini@flipchip.com

Dr. Xuan Wang, Intel Corporation
xuan.wang@intel.com

Keith Easler, Consultant
keasler@cox.net



Sponsored by:

The International Microelectronics And Packaging Society (IMAPS)
Bringing Together the Entire Microelectronics Supply Chain!

Early-Bird Registration Ends: January 5, 2007
Hotel Cut-off: January 5, 2007

Tuesday, January 16

Registration: 11:00 am - 7:00 pm

Buffet Lunch: 12:00 pm - 1:00 pm

KEYNOTE PRESENTATION: 1:00 PM - 1:45 PM

Title: Fuel Cells: A Legislative Agenda for the 110th Congress and Beyond

Speaker: Bud DeFlaviis, Director of Government Affairs, US Fuel Cell Council



Bud DeFlaviis is a graduate of Penn State University. He holds a Bachelors of Arts in Economics and completed a minor in Political Science. Following a brief stint with SEI Investments, Bud went to work for Congressman Curt Weldon (R-PA). Beginning as District Representative, Bud was promoted to Press Secretary, a position he held for three years. After leaving Capitol Hill, Bud joined the US Fuel Cell Council in March of 2004 as the trade association's first lobbyist.

SESSION 1: PHOTOVOLTAICS NEW MATERIALS, DESIGN AND ECONOMICS

Chair: Alan Goodrich, IBIS Associates, Inc.
1:45 pm - 4:15 pm

New Semiconductor Materials for High Efficiency Solar Cells

Wladek Walukiewicz, Lawrence Berkeley National Laboratory

Advanced Photovoltaic Module Concepts using Back-Contact Silicon Solar Cells

James M. Gee, David Meakin, Peter Hacke, Advent Solar, Inc.

Break: 2:35 pm - 2:50 pm

Increasing the Efficiency Levels of Photovoltaic Designs Utilizing Carbon Composite Technology

Carol Burch, Kris Vasoya, Thermalworks

Feasibility Test of an Enhancement Modified Heliostat to Gain High Concentration and High Temperature of Solar Energy

Omar Aliman, Kolej Universiti Kejuruteraan Utara Malaysia (KUKUM)

The Economics of Photovoltaics: A Statistical Analysis of PV-Demand

John V. Busch, Alan Goodrich, IBIS Associates, Inc.

Break: 4:05 pm - 4:20 pm

SESSION 2: CONCENTRATED PHOTOVOLTAICS

Chair: Barbara Landini, FlipChip International LLC
4:20 pm - 5:35 pm

Pilot Production of Multijunction Concentrator Photovoltaics

Nassar H. Karam, G. S. Kinsey, R. A. Sherif, R. R. King, P. Pien, P. Hebert, R. Brandt, H. L. Cotal, G. Glenn, J. Lacey, J. Peacock, B. T. Cavicchi, BOEING - SPECTROLAB, Inc.

APS Activities in High Concentration Photovoltaics
Herbert Hayden, Arizona Public Service

Multijunction Solar Cells for Concentrator Photovoltaics
Geoffrey S. Kinsey, Raed A. Sherif, Peichen Pien, Peter Hebert, Hector L. Cotal, Richard R. King, Randy Brandt, Jon Lacey, Nasser H. Karam, Spectrolab, Inc.

Welcome Reception: 5:35 pm - 7:00 pm

Wednesday, January 17

Registration: 7:30 am - 4:45 pm

Continental Breakfast: 7:30 am - 8:30 am

KEYNOTE PRESENTATION: 8:30 AM - 9:15 AM
TBA, DOE

SESSION 3: ENERGY POLICIES

Chair: Alan Goodrich, IBIS Associates, Inc.
9:15 am - 10:05 am

Renewable Energy Policy in the European Union – A Critical Comparison with the USA

Áron Varga, James Chivall, University of Cambridge – UK

Energy Startups in Japan, Norway, and USA; Difficulties at Startup, Impact of Deregulation, and Entrepreneurship

Andre Lambine, Norwegian University of Science & Technology

Break: 10:05 am - 10:30 am

SESSION 4: PHOTOVOLTAIC CONDUCTOR MATERIALS AND PROCESS

Chair: Barbara Landini, FlipChip International LLC
10:30 am - 11:45 am

Thick Film Paste Electrical Contact to Solar Cells
Alan Carroll, DuPont Electronics

Lead and Cadmium Free Silver Conductor for Si Solar Cell Application

Weiming Zhang, Samson Shahbazi, Michael Neidert, Annette Kipka, Heraeus Incorporated-Thick Film Division

Firing of Thick Film Contacts to Solar Cells
Dale Poser, DuPont Electronics

Lunch: Noon - 1:00 pm

SESSION 5: NEXT GENERATION FUEL CELLS AND OTHER ENERGY TECHNOLOGIES

Chair: Keith Easler, Consultant
1:00 pm - 3:20 pm

Platinum Nanocatalysts for Fuel Cells
Slobodan Petrovic, Arizona State University

Aliphatic Polymer with Sulfonated Aromatic Side Chains as Potential Candidates for DMFC Electrolyte
Paolo Caracino, Marco Arimondi, Omar Ballabio, Yuri Dubitsky, Agusti Sin, Pirelli Labs SpA; Vladimir Tverskoy, Margarita Dyakova, Nina Shevlyakova, Lomonosov Academy of Fine Chemical Technology

Microscale Nuclear Batteries: from Heterojunctions to Fuel Cells
Jeff Crowell, Sandia National Laboratories

Break: 2:15 pm - 2:30 pm

From Cold Fusion to Low Energy Nuclear Reactions: 2007 Update
Steven B. Krivit, New Energy Times

Natural Gas Industry in Iran
Hedayat Omidvar, National Iranian Gas Company

PANEL DISCUSSION: 3:20 PM - 4:45 PM

TITLE: ALTERNATIVE ENERGY, KEY TECHNOLOGIES, POLICIES AND INVESTMENT
MODERATOR: ROUPEN L. KEUSSEYAN, PH.D., DUPONT ELECTRONIC TECHNOLOGIES

Panel members will consist of Speakers, Industry and Government Representatives.

Thursday, January 18

Registration: 7:30 am - 11:40 am

Continental Breakfast: 7:30 am - 8:30 am

SESSION 6: PHOTOVOLTAIC COMMERCIALIZATION, ECONOMICS AND STORAGE

Chair: Andrew Strandjord, FlipChip International LLC
8:30 am - 9:45 am

Near Term Lower Cost Solar Electric Power for US Commercial Customers
Lewis M. Fraas, JX Crystals Inc.

High Thermal Energy Storage with Heat Exchanger for Parabolic Through Solar Thermal Power Plant
Sarayooth Vaivudh, Uttaradit Rajabhat University

A Compact ThermoPhotoVoltaic (TPV) Generator using Boiling Liquid Cell Cooling
Lewis M. Fraas, JX Crystals Inc.

Break: 9:45 am - 10:00 am

SESSION 7: PROCESS, STANDARDS AND ROHS

Chair: Xuan Wang, Intel Corporation
10:00 am - 11:40 am

Component Reliability Standards at 100C+ will Benefit the Alternative Energy Market: Solar & Wind Inverters, Geothermal and even Hybrid Vehicles
Randy A. Normann, John Witham, Sandia National Laboratories

Materials Verification, Qualification, and RoHS Compliance - Cost Effective Portable Testing
Drew Hession-Kunz, Ken Smith, Innov-X Systems, Inc.

Estimation of Anode and Cathode Overpotential in an Operating Direct Methanol Fuel Cell – Theoretical Framework
Chockkalingam Karuppaiah, EC Labs, Inc.

Ink Jet Printing Tools and Processes for Renewable Energy Research
Virang G. Shah, Donald J. Hayes, MicroFab Technologies, Inc.

TOUR OF THE NATIONAL ATOMIC MUSEUM

Soon to be renamed the National Museum of Nuclear Science and History

1905 Mountain Road NW
Albuquerque, New Mexico 87104

January 18, 2007

12:30 pm

FREE OF CHARGE
PRE-REGISTRATION REQUIRED.

The [National Atomic Museum](#) is the nation's only Congressionally-chartered museum of nuclear science and history. The museum was established in 1969 as an intriguing place to learn the story of the Atomic Age, from early research of nuclear development through today's peaceful uses of nuclear technology and is located in the heart of Old Town Albuquerque, along Museum Corridor.

Visitors can explore how nuclear science continues to influence our world. The museum strives to present through the diverse applications of nuclear energy and its pioneers through permanent and changing exhibits & displays.

Following the conclusion of the morning sessions on Thursday, January 18th, please join us for a guided tour of this spectacular museum. Tours are usually 1 ½ to 2 hours. For museum information, go to www.atomicmuseum.com.

You are asked to pre-register using the registration form on-line at www.imaps.org/energy.

REGISTRATION FORM

REGISTER ON-LINE AT WWW.IMAPS.ORG/ENERGY
ALTERNATIVE ENERGY: JANUARY 16 - 18, 2007

Dr. Mr. Ms.

Member ID# _____

First Name _____ M.I. _____ Last Name _____

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REGISTRATION FEES: EARLY-BIRD REGISTRATION ENDS 1/5/07

ALTERNATIVE ENERGY FEES (On or before 1/5) (After 1/5)

Member (IMAPS) \$595 \$695
 Non-member* \$695 \$795

*Includes one-year individual membership in IMAPS

Speaker Chair Chapter Officer \$495 \$595
 Student \$250 \$350

Fees include an Abstract Book; all meals listed and a CD of Presentations. CD of Presentations will be mailed 10 business days after the event.

ADDITIONAL PURCHASES

Companion/Guest (meals only) \$160 \$160
 CD of Presentations (Member Rate) \$150 \$150
 CD of Presentations (Non-Member Rate) \$275 \$275
 Add to Ship in the US \$7 \$7
 Add to Ship Overseas \$25 \$25

TOUR OF THE NATIONAL ATOMIC MUSEUM - FREE

Yes I will attend (Thursday, January 18th, 12:30 pm)

HOW DID YOU HEAR ABOUT THIS EVENT?

Direct Mail Website E-Mail
 Advancing Microelectronics Colleague
 IMAPS Weekly E-mail Bulletin Personal Phone Call
 Industry/Trade Magazine Other _____

HOUSING (Hotel Cut-off is January 5, 2007)

Housing Accommodations **must** be made directly to:

Albuquerque Embassy Suites Hotel and Spa

1000 Woodward Place NE

Albuquerque, NM 87102

P: 505-245-7100 or 1-800-EMBASSY

Room Rate: Single/Double - \$135

Please reference International Microelectronics And Packaging Society or Group Code CRO, when making reservations.

Online reservation:

www.embassysuitesalbuquerque.com

Enter arrival/departure dates.

Enter "CRO" for Group/Convention Code.

Hotel requires a deposit for the first night's room and tax to hold your room. Deposit refunded if reservation is cancelled fourteen (14) days prior to arrival.

PAYMENT

ENERGY07PROG

Alternative Energy Fee: \$ _____

Additional Purchases: \$ _____

Total Payment Due: \$ _____

Enclosed is a check payable in US funds to IMAPS

Charge my fees to:

Visa MasterCard Discover Amex Diners Club

Card# _____ Exp. _____

Signature _____

Card billing address, if different from above: (required)

Mail this form with payment to: IMAPS * 611 2nd Street, NE * Washington, DC 20002-4909. For credit card transactions, register on-line: www.imaps.org; or register by phone with your credit card by calling 202-548-4001; Fax: 202-548-6115. Additional information? E-mail: IMAPS@imaps.org, or visit our web site: <http://www.imaps.org>. Cancellations will be refunded (less a \$50 processing fee) only if written notice is postmarked on or before **Friday, January 5, 2007**. No refunds will be issued after that date.

IMAPS Registration
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