

THE ENERGY CENTER

HYDROGEN INITIATIVE SYMPOSIUM

2ND ANNUAL ECHI SYMPOSIUM
APRIL 12-13, 2007
PURDUE UNIVERSITY
STEWART CENTER
WWW.PURDUE.EDU/DP/ECHI



2007 Program Schedule

THURSDAY, APRIL 12th

Room 310 Stewart Center

7:30 am – 8:00 am Continental Breakfast and Registration

8:00 am – 12:00 pm “Educate the Educators” Developing curriculum in Hydrogen Safety, Storage and Generation (by invitation only)

11:00 am Research Program Registration Opens (East foyer Main floor)

12:00 pm – 1:15 pm *Luncheon* **Purdue Memorial Union Faculty Lounge**

Room 302 Stewart Center

12:00 pm - 1:15 pm *Poster Session (Open Registration Continues)*

1:15 pm – 1:30 pm Welcome by Dr. Jay Gore, Director of the Energy Center

Plenary and Keynote Session

Session Chair: Fabio Ribeiro

Plenary Speaker

1:30 pm – 2:15 pm Charles Forsberg, *The Nuclear-Hydrogen Renewables Economy*

Keynote Speaker

2:15 pm - 2:45 pm Jerry M. Woodall, *The Science and Technology of Al-Ga Alloys as a Material for Energy Storage, Transport, and Splitting Water*

Keynote Speaker

2:45 pm – 3:15 pm James Spearot, *Development of Hydrogen Technologies for Use in Transportation Applications – Current Accomplishments and Future Challenges*

Keynote Speaker

3:15 pm – 3:45 pm Rakesh Agrawal, *Use of Sustainable Hydrogen to Produce Liquid Biofuels*

3:45 pm – 4:00 pm *Break*

4:00 pm–5:40 pm Parallel Sessions (25 Minutes Each)

Room 302

Session Chair: Elliot B. Slamovich

4:00 pm U. (Balu) Balachandran, *Development Of Dense Membranes For Hydrogen Production And Separation*

4:25 pm Geo Richards, *Hydrogen from Coal: Issues and Opportunities*

4:50 pm Edward J. Lahoda, *Heat Transfer and Pinch Analysis of a Sulfuric Acid Decomposition Reactor for the Hybrid Sulfur Nuclear Hydrogen Generation Process*

5:15 pm Robert Kramer, *Hydrogen Production from a Multipurpose Mine Mouth Coke Facility*

Room 310

Session Chair: Bill Leighty

4:00 pm D. Randall Cole, *Green Hydrogen Economics: “Ladies and Gentlemen - Start Your Fuel Cells”*

4:25 pm Raj M. Manglik, *Inter-Element Convective Heat-Mass Transfer In Hydrogen-Fuelled Anode-Supported Planar Solid Oxide Fuel Cells*

4:50 pm Richard Wagner, *Hydrogen Production in Algae using a Genetic Switch*

5:15 pm Timothy Fisher, *Heat Transfer Issues in Hydrogen Storage Technologies*

Purdue Memorial Union North Ballroom

5:45 pm–6:30 pm Appetizers and Cash Bar

6:30 pm - 8:00 pm Banquet and H.C. Brown Award ceremony

FRIDAY, APRIL 13th

Room 302 Stewart Center

7:15 am–8:00 am *Continental Breakfast*

Plenary and Keynote Session

Session Chair:

Plenary Speaker

8:00 am–8:45 am Bruce Logan, *University-Based Hydrogen Energy Centers: Providing Breakthroughs that Enable Energy Independence*

Keynote Speaker

8:45 am–9:15 am Robert J. Farrauto, *New Catalyst Technology for the Hydrogen Economy*

Keynote Speaker

9:15 am–9:45 am Michael R. Ladisch, *Biohydrogen Fuel Sources for Electrical Power Generation*

9:45 am–10:00 am *Break*

10:00am–11:40am Parallel Sessions (25 Minutes Each)

Room 302 *Session Chair: Robert Kramer*

10:00 am Don Camaioni, *Reliable Predictions of the Thermochemistry of Boron-Nitrogen Hydrogen Storage Compounds*

10:25 am David Koltick, *An Experiment to Measure the High-Energy Momentum Distribution in Metal-Hydrides*

10:50 am Dave Austgen, *An Energy Company Perspective on Hydrogen Storage Challenges*

11:15 am Bill Leighty, *Running the World on Renewables via Hydrogen Transmission Pipelines and Firming Geologic Storage*

Room 310 *Session Chair: Timothee Pourpoint*

10:00 am Mark Petri, *The Value of Product Flexibility in Hydrogen Production Technologies: the Use of Real Options Analysis*

10:25 am Prashant Kamat, *Nanostructure Hybrid Architectures for Solar Energy Conversion*

10:50 am Pin-Ching Maness, *Hydrogen Production via the Fermentation of Lignocellulosic Biomass*

11:15 am Daniel Raftery, *Doped Semiconductor Nanoparticle Materials for Solar Hydrogen Conversion*

Room 302 Stewart Center

11:40 am–12:00 pm *Wrap-Up Session*

12:00 pm *Adjourn*

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