

## POSTERS PRESENTED AT 2008 UDEI ENERGY SYMPOSIUM

### **“Organic Composites for Solar cells Applications”**

Presented by: Bakhtyar Ali

Author(s): Bakhtyar Ali, Changhee Ko, Jeffrey Hanft, Mary Galvin, Ismat Shah

### **“Using Electric Vehicles as Storage for Offshore Wind Power”**

Presented by: Scott Baker

Author(s): Willett Kempton and Amardeep Dhanju

### **“Offshore Wind Power in Delaware and Beach Tourism”**

Presented by: Meredith Blaydes

Author(s): Meredith Blaydes, Jeremy Firestone, Willett Kempton

### **“PEM Fuel Cell Simulation and Flow Field Design”**

Presented by: Glenn Catlin

Author(s): Glenn Catlin, Suresh Advani, Ajay Prasad

### **“Engineers Without Borders: Sustainable Energy Solutions in Developing Communities”**

Presented by: Douglas DeVoto

Author(s): Ahmet Kusoglu and Douglas DeVoto

### **“Offshore Wind Power Regulation in Delaware”**

Presented by: Amardeep Dhanju

Author(s): Amardeep Dhanju and Jeremy Firestone

### **“Tungsten Monocarbide as a Novel Electrode Material in Photoelectrochemical Solar Cells”**

Presented by: Dan Esposito

Author(s): Dan Esposito, Kevin Dobson, Brian McCandless, Robert Birkmire, Jingguang Chen

### **“Heat Recuperation Strategies for Microreactors: Thermal Management in Gas-Phase and Catalytic Propane/Air Oxidation”**

Presented by: Justin Federici

Author(s): J. A. Federici, E. D. Wetzal, B. R. Geil, D. G. Vlachos

### **“The Transition from Agricultural Lands to Wetlands during Sea Level Rise: Managing the Ecology and Economics”**

Presented by: Jennifer Halchak

Author(s): Jennifer Halchak, Denise Seliskar, John Gallagher

### **“Solar-Thermochemical Hydrogen Production”**

Presented by: Erik Koepf

Author(s): Erik Koepf

### **“Mechanical Behavior of Fuel Cell Membranes Under Humidity Cycles”**

Presented by: Ahmet Kusoglu

Author(s): Ahmet Kusoglu, Anette Karlsson, Michael Santare, Simon Cleghorn, William Johnson

### **“Offshore Wind Power: What do Delaware Residents Think?”**

Presented by: Jon Lilley

Author(s): Andy Krueger, Jeremy Firestone, Willett Kempton

### **“Hydrogen Generation from Visible Light Using Bandgap-modified titania”**

Presented by: Hong-Ying Lin and Meghan Schulz

Author(s): Hong-Ying Lin, Meghan Schulz, C.P. Huang, Ismat Shah

### **“General Trends in the Stability of Monolayer Bimetallic Surfaces”**

Presented by: Carl Menning

Author(s): Carl Menning and Jingguang Chen

**“Ge Quantum Dots Sensitized TiO<sub>2</sub> Solar Cell”**

Presented by: Yinghong Miao  
Author(s): Yinghong Miao, Ismat Shah

**“Thin Film Cobalt Boride Catalyst Templates for Hydrogen Generation from Sodium Borohydride”**

Presented by: Krishnan Palanichamy  
Author(s): Krishnan Palanichamy, Suresh G. Advani, Ajay K. Prasad

**“Delaware Energy Choices”**

Presented by: Jacqueline Piero  
Author(s): Jacqueline Piero, Amardeep Dhanju, Meredith Blaydes

**“Combining Meteorological Stations and Satellite Data to Evaluate the Offshore Wind Power Resource of Southeastern Brazil”**

Presented by: Felipe Pimenta  
Author(s): Felipe Pimenta, Willett Kempton, Richard Garvine

**“New Zintl Compounds as Potential Thermoelectric Materials”**

Presented by: Bayram Saparov  
Author(s): Bayram Saparov, Svilen Bobev

**“Water Dynamics in PEM Fuel Cells”**

Presented by: Dusan Spornjak  
Author(s): Dusan Spornjak, Ajay Prasad, Suresh Advani

**“Surface Science Studies of Tungsten Carbides as Alternative Electrocatalysts for Direct Methanol Fuel Cells”**

Presented by: Alan Stottlemeyer  
Author(s): Alan Lee Stottlemeyer, Erich Weigert, Jingguang Chen

**“Mechanical Properties of a Reinforced Composite Polymer Electrolyte Membrane”**

Presented by: Yaliang Tang  
Author(s): Melissa Lugo, Yaliang Tang, Anette Karlsson, Michael Santare, Simon Cleghorn, William Johnson

**“Temperature Dependence of Open Circuit Voltage in Polycrystalline Thin Film CdTe and Cu(InGa)Se<sub>2</sub>-based Solar Cells”**

Presented by: Christopher Thompson  
Author(s): Christopher Thompson, Steven Hegedus, William Shafarman, Darshini Desai

**“Energy Storage Devices from Nanostructured Materials”**

Presented by: Bingqing Wei  
Author(s): Charan Masarapu, Venkatachalam Subramanian, Hongwei Zhu, Kai-Hsuan Huang, Haifeng Zeng, Bingqing Wei

**“Effect of CdS Surface Chemistry on CdTe/CdS Solar Cells”**

Presented by: Xiawa Wu  
Author(s): Xiawa Wu, Brian McCandless, Wayne Buchanan, Robert Birkmire

**“Inorganic Solid State Materials for Potential Thermoelectrical Utilization”**

Presented by: Sheng-Qing Xia  
Author(s): Sheng-Qing Xia and Svilen Bobev

**“Surface Texturing and Passivation for Silicon Heterojunction Solar Cell”**

Presented by: Dong Xu  
Author(s): Dong Xu, S. Bowden, U. K. Das, C. Honsberg, R. W. Birkmire

**“Nanocomposites for Thermoelectric Power”**

Presented by: Emre Yassitepe  
Author(s): Emre Yassitepe, Siu-Tat Chui, Ismat Shah

**“Development of Novel and Low-Cost Material for Fuel Cells with Micro/Nanotechnology”**

Presented by: Feng-Yuan Zhang  
Author(s): Feng-Yuan Zhang, Suresh Advani and Ajay Prasad