



University of Hawai'i at Mānoa

Hawai'i Natural Energy Institute

School of Ocean & Earth Science & Technology

Fuel Cell Research Efforts at the Hawaii Natural Energy Institute

The Hawaii Natural Energy Institute (HNEI) is engaged in a number of R&D efforts on proton exchange membrane fuel cells (PEMFCs). In the course of the last couple of years HNEI has developed experimental and analytical techniques to study the fuel cell response to very low contaminant levels and also developed a segmented cell for PEMFC diagnostics. The most current results of the fuel cell research efforts at HNEI will be presented in four short presentations and one poster, as listed below. Each of these HNEI staff members will also be presenting results of their research efforts at the forthcoming Electrochemical Society meeting in Honolulu, October 12-17, 2008.

- 1) The Impact of Trace Carbon Monoxide / Toluene Mixtures on PEMFC Performance (S. Dorn)
- 2) The Impacts of Repetitive Carbon Monoxide Poisoning on Performance and Durability of a Proton Exchange Membrane Fuel Cell (M. Angelo)
- 3) Application of a Segmented Cell System to Characterize the Voltage Loss Distribution of a PEMFC (T. Reshetenko)
- 4) Utilization of a Segmented Cell to Detect Defects in Proton Exchange Membrane Fuel Cells (G. Bender)
- 5) POSTER: Sulfur Dioxide Contamination in PEMFCs: Degradation and Recovery of Performance (Y. Zhai)

**Susanne Dorn, Assistant Specialist
Michael S. Angelo, Research Associate
Tatyana Reshetenko, Post Doctoral Fellow
Guido Bender, Assistant Researcher
Yunfeng Zhai, Post-Doctoral Fellow**

Hawaii Natural Energy Institute

Tuesday, October 7, 2008

3:00 – 4:00 PM

POST 723

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