



The Electrochemical Society
Seminar Notice: Wednesday, February 2nd, 2011

Materials for Abuse Tolerant Lithium-ion Cells

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As lithium-ion battery technologies mature, the size and energy of these systems continues to increase (> 50 kWh for EVs); making safety and reliability of these high energy systems increasingly important. While most materials advances for lithium-ion chemistries are directed toward improving cell performance (capacity, energy, cycle life, etc.), there are a variety of materials improvements that can be made to improve lithium-ion battery safety. Issues including energetic thermal runaway, electrolyte decomposition and flammability, anode SEI stability, and cell-level abuse tolerance continue to be critical safety concerns. This presentation highlights our work to develop advanced materials to improve lithium-ion battery safety and abuse tolerance and to perform cell-level characterization of new materials.

Chris Orendorff has worked in the area of materials chemistry for the past decade and now directs the Battery Abuse Testing Laboratory at Sandia National Laboratories. Chris joined Sandia in 2006 and is now responsible for the battery testing and R&D work performed in the lab for the Department of Energy's U.S. Advanced Battery Consortium (USABC) and Advanced Battery Research (ABR) programs. Chris earned his PhD in Analytical Chemistry from the University of Arizona in 2003.

Date: **Wednesday, February 2nd, 2011**

Location: Lawrence Technological University

21000 West Ten Mile Road, Southfield, MI 48075

Building #5 (Taubman Welcome Center), 4th Floor, Room 406

Use Parking Lot A, C or D (Lots C & D are accessed off NW Highway)

Time: 5:30 pm Reception / 6:30 pm Dinner / 7:30 pm Speaker

Price: \$20 Members / \$22 Guests / \$10 Students

Payment: Cash or Check

RSVP by: **Wednesday, Jan 26, 2011 to Dr. Kimber Stamm**

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<http://www.electrochem.org/ecs/sections/detr/detr.htm>



