

COST REDUCTION OPPORTUNITIES

WEDNESDAY, NOVEMBER 6 - ROOM 102-C, 1:30 PM - 3:30 PM

- **Economic and Environmental Evaluation of Hydrogen Fueling Options for Fuel Cell Heavy-Duty Vehicles** - *Amgad Elgowainy, Argonne National Laboratory*
 - Argonne National Laboratory (ANL) developed the heavy-duty refueling scenario analysis model (HDRSAM) to estimate the fueling cost of heavy-duty hydrogen fuel cell electric vehicle fleets. ANL conducted a techno-economic analysis of medium/heavy duty vehicle (M/HDV) hydrogen fueling to evaluate the economic and environmental impacts of key fueling parameters, including fleet size, fueling amount per vehicle, fueling pressure, fueling rate, precooling requirement, and fleet fueling strategy. In this analysis, ANL presents cost and energy/emissions estimates of various options for fueling hydrogen fuel cell HDV fleets, considering various hydrogen sources (e.g., gaseous vs. liquid).
- **Development and Demonstration of Solid Oxide Fuel Cell (SOFC) System** - *Inyong Kang, HnPower, Inc.*
- **New Manufacturing Process for Cost Reduction and Durability Improvement of Proton Exchange Membrane Fuel Cells: Scale-up and Application for LSC and SSC PFSA Ionomers and Performance and Durability Assessment for Low RH Operation** - *Asmae Mokri, National Research Council of Canada*
 - In this presentation, process development and scale-up of a cost-effective manufacturing process for polymer electrolytes fabrication, as well as the results obtained from performance and durability assessment will be discussed.
- **DOT Coating for Metallic Bipolar Plates - Meeting the Supply Chain Needs for the PEMFC Market** - *Gerald DeCuollo, TreadStone Technologies, Inc.*
 - This paper provides information for a novel PEMFC coating technology (DOT) and the future technology roadmap, joint engineering and equipment scale-up activities and the future plans at Ionbond and TreadStone providing a low cost, proven coating for PEMFC metallic bipolar plates. We will present validated information on the coating technology and results, current supply capability and how we are meeting the supply chain needs of the global PEMFC market today and in the future.
- **Medium and Heavy-Duty FCEV Design: Exploring Fuel Cell System Pathways to Lower Total Cost of Ownership** - *Jennie Huya-Kouadio, Strategic Analysis, Inc.*
 - Exploring the cost advantages of incorporating LDV fuel cell stacks within MD/HDV fuel cell systems.
- **AutoStack Industrie - Mature and Cost Competitive Stack Technology for Automotive Mass Production** - *Dr. André Martin, André Martin Consulting*