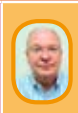
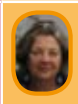
Conference program

PM: Parallel Workshops

14:00-15:40	**2 PARALLEL WORKSHOPS - WS1: ULTRA/SUPERCAPACITORS & MICRO FUEL CELLS - ESPACE SIAGNE B**
CHAIRMAN: CARL KUKKONEN CEO, DIRECT METHANOL FUEL CELL CORPORATION, A VIASPACE COMPANY	
14:00-14:25	 **Carl Kukkonen,** CEO, Direct Methanol Fuel Cell Corporation, a VIASPACE company **Prospects for Fuel Cells in Portable, Mobile and Backup Power Applications** • Portable electronics • Fork lifts & automobiles • Backup power applications of fuel cells in areas where they potentially compete directly with batteries
14:25-14:50	 **Stephanie Fajtl,** Analog Designer, ST Ericsson **Power Management in Micro-fuel Cell Supply System for Mobile Applications** • Hybrid architecture. • Input voltage regulation: not a classical scheme. • Control two fuel cell based power sources in parallel charging a single Li Ion battery.
14:50-15:15	 **Gianni Sartorelli,** Senior Sales Application Engineer, Maxwell Technologies SA **Ultracapacitors Used to Extend the Dynamic Performances of a Battery Powered Systems: some key parameters** • If the idea Ultracapacitors could fully replace batteries or complement batteries in systems is well understood its real application needs some differentiated approach. • The paper describes the key parameters for evaluating the pertinence of such «twin» energy storage devices.
15:15 - 15:40	 **Maria Mastragostino,** Professor, University of Bologna **PYR 1(201) TFSI - Based Asymmetric Double-layer Supercapacitor for HEV Application** • One strategy for increasing the specific energy and power of electrochemical double-layer capacitors (EDLCs) is the use of ionic liquid electrolytes (ILs) in asymmetric double-layer carbon supercapacitors (AEDLCs) which allow to reach maximum cell voltages as high as 3.7 V with high cycle stability over several thousand cycles. • Here, we report the energy and power performance of AEDLCs featuring pyrrolidinium–based ILs evaluated by conventional galvanostatic cycling and by the USABC and DOE FreedomCAR benchmark protocols. • The most outstanding finding is that the IL-based supercapacitors meet the dynamic power and energy capability targets stated by DOE for power-assist HEVs.
14:00-15:40	**2 PARALLEL WORKSHOPS - WS2: RAW MATERIALS – PART 1 - AUDITORIUM RIVIERA**
CHAIRMAN: SÉBASTIEN MARTINET HEAD OF LABORATORY OF COMPONENTS FOR ENERGY, CEA/LITEN	
14:00-14:25	 **Thorsten Lahrs,** CEO, Phostec Lithium Inc – a Süd Chemie Company **Quality Driven Phostech's Advanced LiFePO4 Cathode** • Phostech Lithium produces and sells Life Power® P1 (energy grade) and Life Power® P2 (power grade) in its plant in Canada and a semi-commercial unit in Germany and controls several synthesis processes to fulfill needs of present & future customers and markets. • The presentation will highlight quality aspects of LiFePO4 developments/processes and comment on the QC efforts necessary to provide high-quality products on the market
14:25-14:50	 **James H.Miners,** Chief Operating Officer, High Power Lithium **New Cathode for High Performance Li Ion: Manganese Phosphate** • The benefits of Phosphate cathodes • Manganese Phosphate: performance, safety, durability, low cost • Combining the benefits of a phosphate with the voltage of an Oxide (4.1 V)
14:50-15:15	 **Fouad Brahim Boumakh,** President & CEO, Nano-Techpower Inc **LiFePO4 Nonlinear Wave Phase Shift and High Order Frequency Modes for Next Generation Rechargeable High power Li-ion Battery System Design** • Nano-techpower explores a new advanced Battery Design for the Li-ion technology based on MIT's nonlinear wave intercalation dynamics. • Presentation of the many nontrivial implications and extensions under development within this fundamental new phase shift and nonlinear higher order frequency modes of ion intercalation at the composite eco-friendly and somewhat thermally stable LiFePO4 cathode level, as well as other potential commercial candidates for Electrode and electrolyte electrochemical formulations.
15:15 - 15:40	 **Hideaki Sadamura,** General Manager R&D, Energy Solution Company Toda Kogyo Corp **High Capacity Performance of Mn-based Li-rich NCM Composite Material**
15:40 - 16:10	**Coffee Break in the exhibition area**