

Oral presentations

Track A – meeting room S01 – Chair: Professor Vincenzo Esposito
Prize evaluation panel: Senior Researcher Jens-Claude Grivel, Assistant Professor Marie Lund Traulsen and Associate Professor Anders Wulff

Track B – meeting room S09 – Chair: Professor Jens Wenzel Andreasen
Prize evaluation panel: Senior Executive Officer Anders Smith, Associate Professor Johan Hjelm and Senior Researcher Roar R. Søndergaard

10:25 – 11:25
Simon Pitscheider, Investigation of the oxygen reactions on solid oxide cell electrodes
Alexandra Ploner, Experimental fault simulation on SOFCs: carbon deposition analysis
José Xavier Sierra Trujillo, In-operando observation of microstructural evolution in a solid oxide cell electrolyte operating at high polarisation

Mathias Kjærgård Christensen, In situ characterization of Zn-Air batteries
Christophe Gadea, Smart nano-inks for inkjet printing of oxide based materials
Yuri Opata, Study of doping effects on the critical current density of $\text{DyBa}_2\text{Cu}_3\text{O}_{7-d}$

13:00 – 14:00
Stéven Pirou, Performance and stability of zirconia based oxygen transport membranes under conditions relevant for oxy-fuel combustion
Peyman Khajavi, Strength and fracture toughness improvement of SOCs supports
Dordije Tripkovic, Why oxygen electrodes in solid oxide cells are so bad?

Tiago Ramos, Numerical methods for X-ray imaging enhancement
Mateusz Reda, Oxygen reduction reaction intermediates on N-doped graphene - a DFT study
Jaysree Pan, Electrochemical reduction of nitrogen to ammonia

14:20 – 15:20
Hans Becker, Phosphoric acid anion migration through PBI membrane
Jens Q. Adolphsen, Microstructural optimization of oxygen electrode for HTP-AEC
Filippo Fenini, Corrosion stable ceramic materials for anodic catalyst support in PEM electrolysis cells

Marios Chatzisideris, Ecodesign of building-integrated organic photovoltaic microgrids
Jan Haertel, Design of cross-flow heat exchangers using topology optimization
Dominik Dominkovic, Which types of energy storage do we need in smart cities?