

## Symposium

### Oral presentation

#### Room Kepler, Monday - Friday

- s3 Sunghak Park, Marc Koper, *Study on the H<sub>2</sub> gas bubble detachment on the microelectrode surface during hydrogen evolution reaction*, **Abstract.**
- s3 Zuzanna Zarach, Mariusz Szkoda, Konrad Trzcinski, Marcin Lapinski, Grzegorz Trykowski, Andrzej P. Nowak, *The Influence of Pt Counter Electrode on the Electrochemical Properties, Composition and Energy Storage Mechanism of 1T/2H-MoS<sub>2</sub> electrode material*, **Abstract.**
- s3 Pekka Peljo, *Combined Experimental and Modelling Approach to Accelerate Development of Flow Batteries for Stationary Energy Storage*, **Abstract.**
- s3 Mingchuan Luo, Marc Koper, *A kinetic descriptor for the electrolyte effect on the oxygen reduction kinetics on Pt(111)*, **Abstract.**
- s3 Tushita Rohilla, Dhiraj K. Mahajan, Ahmad Husain, *Gaining Insights from Molecular Dynamics to Synthesize Hydrocarbon Polymer Electrolyte Membranes with Facile Proton Transport*, **Abstract.**
- s3 Luis Fernando Arenas, Carlo Caianiello, Rene Wilhelm, Thomas Turek, *A New Flow Battery Concept based on a Tetracationic Hydroxylated Viologen Derivative*, **Abstract.**
- s3 Hesamoddin Rabiee, Lei Ge, Shihu Hu, Hao Wang, Zhiguo Yuan, *Regulating the Reaction Zone of Electrochemical CO<sub>2</sub> Conversion on Gas-diffusion Electrodes*, **Abstract.**
- s3 Antonio Maria Asensio, Lucile Bernadet, Simon Schweidler, Miriam Botros, Marc Torrell, Antonio Barbucci, Albert Tarancón, Antonio Maria Asensio, *High entropy oxides towards electrode stability for Solid Oxide Cells*, **Abstract.**
- s3 Miroslav Hala, Roman Kodým, Martin Prokop, Martin Paidar, Karel Bouzek, *Steel Sheet Stamping as an Effective Tool for PEM Fuel Cells Bipolar Plates Production - an Impact on the Local Quantities Distribution*, **Abstract.**
- s3 Lukas Feierabend, Harry Hoster, *Reduced Order Modelling Framework for PEM Fuel Cell Stacks*, **Abstract.**
- s3 Tamara Milicic, Luka A. Zivkovic, Tanja Vidakovic-Koch, *The Application of the Nonlinear Frequency Response Method for the Diagnosis of the Proton Exchange Membrane Water Electrolyzer*, **Abstract.**
- s3 Mahboob Alam, Kefeng Ping, Maike Käärik, Jaan Aruväli, Päärn Paiste, Nadezda Kongi, Pavel Starkov, *Comparison of electrocatalysts derived from single precursor with combination of Iron, Cobalt and Nickel*, **Abstract.**
- s3 Miriam Hesse, Bastian Kaufmann, Harry Hoster, *Next generation catalyst: corrosion engineering for highly efficient oxygen evolution in anion exchange membrane electrolysis*, **Abstract.**

- s3 Choemun Kim, Youngseung Na, Gyumyeong Lee, Beomhwi Park, *Improvement of Fuel Cell Performance for Automobiles through Distribution Zone Development of Metal Bipolar Plates*, **Abstract.**
- s3 Bastian Kaufmann, Miriam Hesse, Moritz Pilaski, Harry Hoster, *Direct membrane deposition: Proof of concept for AEM electrolysis*, **Abstract.**
- s3 Magdalena Warczak, Magdalena Osial, Weronika Urbanska, Marcin Pisarek, Wojciech Nogala, Marcin Opallo, *Battery waste powder as electrocatalyst for biphasic ORR*, **Abstract.**
- s3 Anna K. Mechler, Sabita Bhandari, Praveen V. Narangoda, Siri O. Mogensen, Marc F. Tesch, Anna K. Mechler, *Influence of Experimental Parameters on the Evaluation of Electrocatalysts for the Oxygen Evolution Reaction by RDE*, **Abstract.**
- s3 Jan Macak, Raul Zazpe, Hanna Sopha, Jhonatan Rodriguez Pereira, *Electrocatalytic Applications of 2D Molybdenum Dichalcogenides Prepared by Atomic Layer Deposition*, **Abstract.**
- s3 Boaz Izelaar, Simone Asperti, Aleksandra Kaminska, Davide Ripepi, Ruud W.A. Hendriks, Iulian A.I. Dugulan, Ivan J.G. Buijnsters, Amarante J. Böttger, Fokko M. Mulder, Ruud Kortlever, *A Critical Assessment of the Electrochemical N<sub>2</sub> Reduction Performance of Metal Carbides and B-doped Carbon Materials*, **Abstract.**
- s3 Aiman Bissenbay, Sandugash Kalybekkyzy, Akerke Kanatkyzy, Almagul Mentbayeva, *Functionalized nanofibrous structured PVA-PEI based anion exchange membrane fabrication for fuel cell application*, **Abstract.**
- s3 Yuto Kameoka, Takashi Hakari, Chihiro Murata, Daisuke Okuda, Shinji Ozaki, Masashi Ishikawa, *Beneficial effect of fluoroethylene carbonate on vinylene carbonate-induced SEI at mesoporous carbon-sulfur cathode interphase in lithium-sulfur batteries*, **Abstract.**
- s3 Felix Lohmann-Richters, Stefanie Renz, Leon Bürgers, Robert Vaßen, Martin Müller, *High-temperature Alkaline Electrolysis – Opportunities, Challenges, and Separators*, **Abstract.**
- s3 Shilong Fu, Ming Li, Simone Asperti, Wiebren De Jong, Ruud Kortlever, *Unravelling the effect of activators used in the synthesis of biomass-derived carbon electrocatalysts on the electrocatalytic performance for CO<sub>2</sub> reduction*, **Abstract.**
- s3 Dita Hronová, Jaromír Hnát, Karel Bouzek, *Influence of the carbon support on the catalytic properties of selenide-based electrocatalyst for oxygen reduction reaction in an alkaline fuel cell*, **Abstract.**
- s3 Corina Andronescu, Vimanshu Chanda, Ignacio Sanjuán, João Junqueira, Nivedita Sikdar, Faria Huq, Michael Braun, Corina Andronescu, *CO<sub>2</sub>/CO Electroreduction Selectivity Modulation by the Gas Diffusion Electrode Architecture*, **Abstract.**

- s3 Dulce M. Morales, Daliborka Jambrec, *Metal Oxide Nanoparticles Supported on Multiwalled Carbon Nanotubes as Electrocatalysts for the Glycerol Oxidation Reaction*, **Abstract.**
- s3 Patrick McHugh, Arindam Das, Alexander Wallace, Vaibhav Kulshrestha, Vinod Shahi, Mark Symes, *Direct Lignin Electrolysis in a Continuous Flow AEM Reactor*, **Abstract.**
- s3 An Phuc Dam, Kai Sundmacher, Georgios Papakonstantinou, *Insights on the Pathway-Related Charge of Iridium Dissolution Products and Implications for Electrocatalytic Water Splitting*, **Abstract.**
- s3 Mahdi Moghaddam, Pekka Peljo, *Charge transfer in solid boosted flow batteries: kinetics and Thermodynamics*, **Abstract.**
- s3 Aline Bornet, Simon Pitscheider, Erlend Bertheussen, Christoffer M. Pedersen, Annabelle Maletzko, Nedjeljko Seselj, Gustav K. H. Wiberg, Christian Kallesoe, Julia Melke, Carsten Cremers, Matthias Arenz, *OER Catalyst's Transport Layer Matters: Stability Comparison Between C-Based GDL and Ti-Based PTL*, **Abstract.**
- s3 Gumaa El-Nagar, Flora Haun, Siddharth Gupta, Sasho Stojkovikj, Matthew T. Mayer, *Effects of Cation Crossover through Anion Exchange Membranes on the Operation of Zero-gap CO<sub>2</sub> Electrolysers*, **Abstract.**
- s3 Ieva A. Cechanaviciute, Olga A. Krysiak, Xin Wang, Simon Zerulla, Wolfgang Schuhmann, *Synthesis, Characterization and Application of High-Entropy Materials Electrocatalysts*, **Abstract.**
- s3 Jian Zhang, Thomas Quast, Wenhui He, João R. C Junqueira, Wolfgang Schuhmann, Stefan Dieckhöfer, *In Situ Carbon Corrosion and Cu Leaching as a Strategy for Boosting Oxygen Evolution Reaction in Multi-Metal Electrocatalysts*, **Abstract.**
- s3 Inyoung Jang, Geoff Kelsall, *Structural effects on performances of solid oxide electrochemical reactors with 3D printed Ni(O)-YSZ pillared negative electrodes*, **Abstract.**
- s3 Florian Schwarz, Anna K. Mechler, *Electrooxidation of Anhydrous Methanol to Formaldehyde*, **Abstract.**
- s3 Mohsin Muhyuddin, Davide Testa, Roberto Lorenzi, Giovanni Maria Vanacore, Federico Poli, Francesca Soavi, Walter Giurlani, Massimo Innocenti, Luca Rosi, Carlo Santoro, *Development of Fe-N-C Electrocatalysts for Oxygen Reduction Reaction using Waste Tires as a Cost-effective Carbon Source*, **Abstract.**
- s3 Aktilek Akhmetova, Bauyrzhan Myrzakhmetov, Yanwei Wang, Almagul Mentbayeva, *Development of Quaternized Chitosan Integrated with Nanofibrous Polyacrylonitrile Mat as Anion Exchange Membranes*, **Abstract.**
- s3 Adrian Frandsen, Katerina Macounová, Jan Rossmeisl, Petr Krtil, *Selectivity Control in Anodic Gas Evolution-Combined DFT and Experimental Approach*, **Abstract.**

- s3 Dimitra Anastasiadou, Emiel J.M. Hensen, Marta Costa Figueiredo,  
*Electrochemical Synthesis of Ammonia from Nitrate on Preferentially Oriented  
Cu<sub>2</sub>O, Abstract.*
- s3 Katerina Minhov Macounov, Catalina Astudillo, Petr Krtil, Serban Stamatina,  
*Local Structure Control of Selectivity in Sea Water Electrolysis - Model Case of Ru-  
Ti-O Oxides, Abstract.*