



71st Annual Meeting

of the
International Society of Electrochemistry

Belgrade, Wednesday 31 August to Friday 4 September 2020

Symposium 13
Oral presentation program

Wednesday 2 September 2020

s13 Electrochemistry in the digital age model supported process analysis and design

Chairman : Michael Eikerling; Ulrike Krewer

15:00 to 15:10

Introduction to the symposium

15:10 to 15:40 Invited

Tejs Vegge (Department of Energy Conversion and Storage, Technical University of Denmark, Kgs. Lyngby, Denmark)

[Accelerated discovery of next-generation battery materials and interfaces](#)

15:40 to 16:00

Kai S. Exner (Department of Theoretical Chemistry, University of Duisburg-Essen, Essen, Germany)

[Material Screening Revisited: Challenging the Paradigm of a Thermoneutral Electrocatalyst as Apex of a Volcano Plot](#)

16:00 to 16:20

Masaki Adachi (Department of Engineering, University of Cambridge, Cambridge, United Kingdom), Ignas Budvytis, Caterina Ducati, Roberto Cipolla

[Data-Driven Design of Microstructure in All-Solid-State Batteries](#)

16:20 to 16:50 Invited

Karen Chan (Physics, DTU, Kongens Lyngby, Denmark)

[The importance of double layer charging and electrolyte composition in electrochemical CO₂ reduction](#)

16:50 to 17:10

Coffee Break

17:10 to 17:40 Invited

Charles W. Monroe (Department of Engineering Science, University of Oxford, Oxford, United Kingdom)

[Chemomechanical Models for Locally Non-neutral Solid Electrolytes](#)

17:40 to 18:00

Fabian Kubannek (Institute of Energy and Process Systems Engineering, TU Braunschweig, Braunschweig, Germany), Ulrike Krewer

[Model-assisted Analysis of Kinetics and Transport in Porous Electrodes by Species Frequency Response Analysis](#)

18:00 to 18:20

Divya Bohra (Chemical Engineering, TU Delft, Delft, Netherlands), Wilson Smith

[Modeling electrochemical CO₂ reduction across scales](#)

18:20 to 18:40

David Franzen (ICVT, Clausthal University of Technology, Clausthal-Zellerfeld, Germany), Barbara Ellendorff, Thomas Turek

[Spatially resolved model of oxygen reduction reaction in porous gas-diffusion electrodes](#)

18:40 to 18:50

Conclusion of symposium