



# Neutron Scattering and Electrochemistry Workshop

## Wednesday, 30 August 2023

Seminar: Badging, Spallation Neutron Source (SNS) Bldg, 8600, Lobby (08:30 - 09:00)

Seminar: Introduction/Welcome (09:00 - 09:10)

Seminar: Burcu Gurkan - Case Western Reserve University “Significance of Electrode-Electrolyte Interfaces for Energy Storage and Conversion Processes” (09:10 - 09:50)

Seminar: Robert Sacci - Oak Ridge National Laboratory “Following material synthesis and processing with neutron scattering” (09:50 - 10:30)

Seminar: Daniel Murray - Lawrence Berkeley National Laboratory “Conformational equilibria underlying electron bifurcation in *Thermotoga maritima* Fix/EtfABCX” (10:30 - 10:50)

Seminar: Yat Li - University of California-Santa Cruz “Structural and Compositional Engineered Electrochemical Materials for Energy Storage and Catalysis” (11:00 - 11:40)

Seminar: Seunghoon Lee - Oak Ridge National Laboratory “In Situ Observation of Dynamic Changes in Structure and Product Selectivity of Cu-catalysts during Electrochemical CO<sub>2</sub> Reduction” (11:40 - 12:00)

Seminar: Katie Browning - Oak Ridge National Laboratory “Using Neutron Reflectometry to Probe Electrode-Electrolyte Interfaces of Si Anodes” (13:00 - 13:40)

Seminar: Ivan Popov - The University of Tennessee Oak Ridge Innovation Institute “The search for the Grotthuss mechanism.” (13:40 - 14:00)

Seminar: Sarah Blair - National Renewable Energy Laboratory “Developing an understanding of dynamic SEI formation during electrochemical N<sub>2</sub> reduction via combined, time-resolved in situ neutron reflectometry and X-ray diffraction” (14:00 - 14:40)

**Seminar: Anne-Frances Miller - University of Kentucky “Electron Transfer Bifurcation: A Mechanism for Energy Conservation at the level of Electrons.” (15:00 - 15:40)**

**Seminar: Dima Bolmatov - University of Tennessee “Evidence for Long-Term Potentiation in Biological Membranes” (15:40 - 16:00)**

**Seminar: Break Out Sessions (16:00 - 17:00)**

**Seminar: Dinner and Plenary: Benjamin Doughty “Ions and Soft Interfaces At and Away From Equilibrium” (17:00 - 19:00)**

# Thursday, 31 August 2023

**Seminar: Welcome Back (08:55 - 09:00)**

**Seminar: Xiao Su - University of Illinois Urbana-Champaign “In-situ Neutron Reflectometry Investigations for Redox-Mediated Electrochemical Separations” (09:00 - 09:40)**

**Seminar: Sudhan Nagarajan - Wayne State University “Understanding Depth-dependent Cathode Electrolyte Interphase on the Layered Li-ion Cathodes Operated at Extreme Environment” (09:40 - 10:00)**

**Seminar: Michael Ohl - Research Center Juelich “Polymer/ Lithium Batteries Studied with MD Simulations and Dynamic Neutron Scattering” (10:20 - 10:40)**

**Seminar: Yu Zhu - University of Akron “Novel Metal Complex Catholytes for Aqueous Redox Flow Batteries” (10:40 - 11:20)**

**Seminar: Break Out Session Recap (11:20 - 12:00)**

**Seminar: Close-out/Lunch (12:00 - 12:15)**