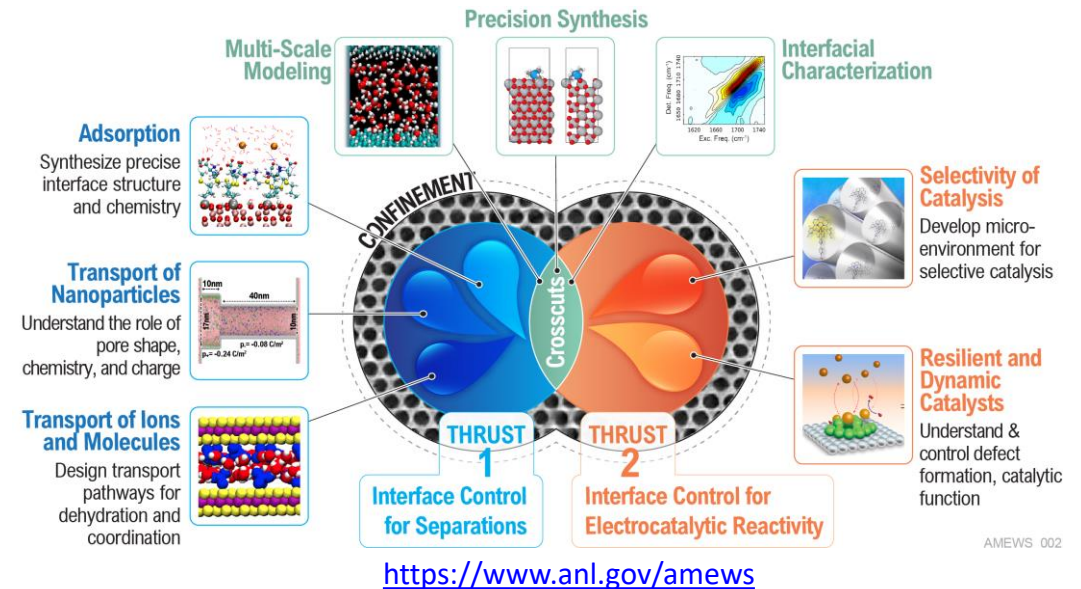


# Advanced Materials for Energy-Water Systems (AMEWS)

Seth Darling (Argonne National Laboratory); Class: 2018-2026

**MISSION:** To revolutionize our understanding of aqueous solutes in confined and electrified environments at interfaces, by integrating new experimental, theoretical, and modeling capabilities.



## RESEARCH PLAN

Our goals are to:

1. Design and control transport properties of ions, molecules, and nanoparticles under confinement
2. Discover pathways to capture and control release of trace solutes from complex aqueous solutions
3. Identify new mechanisms to drive selective electrocatalysis in complex aqueous mixtures
4. Predict and synthesize catalysts that are resilient under electro-active aqueous environments