2025 Interfaces for Energy and the Environment Conference

May 19 – 23, 2025, Pacific Northwest National Laboratory (Richland, WA, USA)

The 2025 Interfaces for Energy and the Environment Conference (IEEC) is an interdisciplinary meeting designed to advance fundamental understanding of chemical processes at mineral-aqueous interfaces relevant to energy and environmental applications. The conference will be held in-person at Pacific Northwest National Laboratory in Richland, WA (USA), May 19 – 23, 2025.

Interfacial reactions drive elemental cycling at the Earth's surface and play a pivotal role in many aspects of human life, such as agriculture, water purification, and environmental restoration and management of contaminants and geologic waste repositories. Since the onset of the 21st century, scientists have made strides to arrive at atomic measurement resolution for interfaces submerged in aqueous solutions. Despite increasing insight into the underlying interfaces and the immediately adjacent aqueous phases, there remain many outstanding challenges for the community to tackle in the decades to come, such as learning how to address and understand nanoconfinement effects, interfaces under flow, the impact of defects, and upscaling to application scale.

Symposium topics include:

- Theories for interface structure, dynamics, and charge transfer
- Abiotic and biologically-mediated nucleation, growth and dissolution
- Frontiers in computation and advances in analytical techniques
- Interfaces at all scales: Extending the spatial and temporal scales of interfacial studies
- Interfaces under complex and extreme environments: High salinity, pH, temperature, confinement, radiation, and photocatalysis

Participants from industry, academia, and national laboratories are encouraged to submit abstracts sharing the latest scientific advances and developments in experimental and theoretical techniques for surface and interfacial science. Relevant application domains include but are not limited to the fields of geochemistry, atmospheric chemistry, soil science, environmental management, water purification, energy, and catalysis science. The technical program features invited talks, contributed oral presentations, poster sessions, sponsor and vendor exhibits, and a dinner banquet. Find more details here about submitting abstracts for talks and posters, registration, etc.

Organizing committee: **Sandra D. Taylo**r (Pacific Northwest National Laboratory, co-chair), **Mavis Boamah** (Pacific Northwest National Laboratory, co-chair), **Anastasia G. Ilgen** (Sandia National Laboratories), **Franz Geiger** (Northwestern University), **Eric Borguet** (Temple University), **Young-Shin Jun** (Washington University in St. Louis), **James Kubicki** (University of Texas at El Paso), **Nadine Kabengi** (Georgia State University); **Julianne Gibbs** (University of Alberta, Canada), **Kevin Rosso** (Pacific Northwest National Laboratory), **Vicki H. Grassian** (University of California San Diego)

Symposium sponsors: Pacific Northwest American Vacuum Society, Pacific Northwest National Laboratory