



## SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

### NUCLEAR MATERIALS

## Materials Corrosion Behavior in Advanced Nuclear Reactor Environments III

**Abstract:** Advanced nuclear reactors are a promising addition to expanding the domestic and worldwide sustainable energy portfolio in the wake of climate change. However, the qualification of materials suitable to meet the operational needs of different reactor technologies has not matured, especially concerning corrosion performance in molten salt and liquid metal fission designs and fusion designs. The aim of this symposium is to provide a space to discuss current progress in elucidating the interfacial corrosion mechanisms of structural materials subjected to these extreme operating environments.

This symposium will prioritize discussions on:

- Corrosion mechanisms between structural materials and liquid tritium breeders (e.g. PbLi, Li, FLiBe, etc.).
- Corrosion mechanisms between structural materials and liquid metals (e.g. lead, sodium, etc.)
- Synergistic effects of operation conditions (e.g. irradiation, fission products, tritium, etc.) on the corrosion mechanisms between structural materials in molten salt and liquid metal systems.

#### **SPONSORED BY:**

TMS Structural Materials Division; TMS Corrosion and Environmental Effects Committee

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