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TMS 2025
154th Annual Meeting & Exhibition



March 23–27, 2025
MGM Grand Las Vegas
Hotel & Casino
Las Vegas, Nevada, USA
#TMSAnnualMeeting



SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2025 SYMPOSIUM:

NUCLEAR MATERIALS

Seaborg Institutes: Emerging Topics in Actinide Sciences

The consortium of Seaborg Institutes within the U.S. Department of Energy national laboratory system has the common purpose of advancing the study of actinide science and stimulating the development of early career professionals in the fields of actinide and nuclear research. This symposium will be hosted by the four current Seaborg Institutes and will feature emerging topics in actinide research. Advancing our understanding of the basic science of the actinide elements and their compounds is the primary goal of the Seaborg Institutes. The topical areas studied under the Seaborg Institutes include fundamental actinide physics and chemistry directed at understanding f-electron behavior, the materials science and properties of nuclear fuels, nuclear fuel cycle chemistry and actinide separation science, nuclear forensics, actinide radiochemistry, and bio-actinide chemistry. This symposium will highlight recent discoveries and advances from the international community on actinide research relevant to the Seaborg Institutes.

Topics of interest include but are not limited to:

- Magnetic and electronic properties of actinides and actinide materials, including fundamentals of f-electron interactions and quantum phenomena (theory and experiments)
- Preparation and purification of actinide elements and compounds
- Characterization and post irradiation examination of nuclear fuels
- Forensic identification and detection of actinide species
- Actinide radiochemistry and bio-actinide chemistry
- Novel approaches to chemical separations of actinide elements
- Innovation in methods for recycle of used nuclear fuels

ORGANIZERS

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SYMPOSIUM SPONSORS

TMS Structural Materials Division, TMS Nuclear Materials Committee

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QUESTIONS?

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