



## SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

### NUCLEAR MATERIALS

## Developments in Advanced Nuclear Structural Materials

This symposium will focus on the latest advances in the development, characterization, and performance assessment of nuclear structural materials. As nuclear energy continues to play a vital role in clean energy production, the need for materials that can withstand extreme environments, such as high radiation, high temperatures, and corrosive conditions, has become increasingly important. The symposium will discuss innovative materials that improve the safety, efficiency, and longevity of nuclear reactors.

The topics of interest to this symposium will cover a wide range of topics, but are not limited to the following:

- Advanced manufacturing (including non-solid-state manufacturing, such as LPBF, DED, etc.), joining, or high-throughput fabrication techniques for nuclear structural materials
- New alloy designs and their performance in nuclear reactors
- Development of radiation-resistant and high-temperature materials
- Novel coatings and corrosion-resistant materials for nuclear applications
- Behavior of novel materials under irradiation, high temperature, corrosive, or long-term extreme environments
- In situ testing and characterization of new nuclear materials

#### **SPONSORED BY:**

TMS Structural Materials Division; TMS Nuclear Materials Committee

#### **ORGANIZED BY:**

- **Rongjie Song**, Idaho National Laboratory
- **Janelle Wharry**, University of Illinois
- **Celine Hin**, Virginia Tech
- **Lingfeng He**, North Carolina State University
- **Charles Hirst**, University of Wisconsin-Madison
- **David Simeone**, CEA
- **Olivier Tissot**, CEA Saclay, DES/ISAS/SRMA/LA2M
- **Dalong Zhang**, Baylor University