

THE WORLD COMES HERE.  
**TMS 2025**  
154<sup>th</sup> 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:

### ADVANCED CHARACTERIZATION METHODS

## Neutron and X-ray Scattering in Materials Science and Engineering

Neutron and X-ray scattering provide powerful and indispensable tools for the study of materials. Scattering studies often yield insights into the structure and dynamics of materials that are not accessible by other means. This symposium solicits presentations covering emerging topics that utilize scattering techniques, including both neutron and x-ray scattering. The symposium will bring together researchers from the scattering and materials science communities to address how scattering techniques can be applied to current problems in materials science and engineering.

Topics of interest include but are not limited to:

- Structure determination of complex systems
- Phonons, lattice thermal transport, lattice effects on stability, anharmonicity
- Magnetism, spin dynamics, magnons, and other collective excitations and their interactions
- Microstructure characterization and control
- Residual stress mapping and imaging in engineering components
- Phase transformation kinetics and fundamental issues of nucleation and growth
- Structure and property relationships in soft matter
- Neutron and X-ray instrument development and modeling
- Theory and modeling of scattering process and material response

#### ORGANIZERS

**Michael Manley**, Oak Ridge National Laboratory; **Chen Li**, University of California-Riverside; **Hillary Smith**, Swarthmore College; **Jennifer Niedziela**, Oak Ridge National Laboratory

#### SYMPOSIUM SPONSORS

TMS Functional Materials Division, TMS Chemistry and Physics of Materials Committee

[www.tms.org/TMS2025](http://www.tms.org/TMS2025)

### QUESTIONS?

Contact [programming@tms.org](mailto:programming@tms.org)