

**TMS2016**  
145<sup>th</sup> Annual Meeting & Exhibition

FEBRUARY 14-18 DOWNTOWN NASHVILLE,  
TENNESSEE MUSIC CITY CENTER

Connecting the Global Minerals, Metals, and Materials Community.



## Materials and Fuels for the Current and Advanced Nuclear Reactors V

Globally, significant efforts are ongoing to meet the growing energy demand with the increased use of nuclear energy. Extensive work is being performed to develop materials and fuels for the advanced nuclear reactors. In addition, efforts are also ongoing to extend the life of existing nuclear power plants. Scientists, engineers, and students at various national laboratories, universities, and industries are working on a number of materials challenges for the nuclear energy systems. The objective of this symposium is to provide a platform for these researchers to congregate, exhibit, and discuss their current research work, in addition to sharing the challenges and solutions with the professional community and thus, shape the future of nuclear energy.

### Abstracts are solicited in the following topics:

- Nuclear reactor systems
- Advanced nuclear fuels—fabrication, performance, and design
- Advanced nuclear fuels—properties and modeling
- Advanced structural materials—fabrication, joining, properties, and characterization
- Lifetime extension of reactors—nuclear materials aging, degradation, and others
- Experimental, modeling, and simulation studies
- Fundamental science of radiation-material interactions
- Irradiation effects in nuclear materials
- Materials degradation issues—stress corrosion cracking, corrosion, creep, fatigue, and others
- Design of materials for extreme radiation environments
- Radiation measurement techniques and modeling studies
- Nuclear waste - disposal, transmutation, spent nuclear fuel reprocessing

### Organizers include:

Ramprashad Prabhakaran, Pacific Northwest National Laboratory (USA)

Dennis Keiser, Idaho National Laboratory (USA)

Raul Rebak, GE Global Research (USA)

Clarissa Yablinsky, Los Alamos National Laboratory (USA)

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