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TMS 2017
146th Annual Meeting & Exhibition



February 26 – March 2, 2017
San Diego, California, USA

MATERIALS AND FUELS FOR THE CURRENT AND ADVANCED NUCLEAR REACTORS VI

Globally, significant efforts are ongoing to meet growing energy demands by increasing the use of nuclear energy. Extensive work is being performed to develop materials and fuels for 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 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 challenges and solutions with the professional community that will help shape the future of nuclear energy.

Abstracts are solicited in (but not limited to) 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

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PROCEEDINGS PLANS

Selected papers from this symposium may be published in the TMS journal, *Metallurgical and Materials Transactions*.

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