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**TMS 2017**  
146<sup>th</sup> Annual Meeting & Exhibition



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

## **MICROSTRUCTURAL PROCESSES IN IRRADIATED MATERIALS**

Radiation can produce significant degradation in the properties of materials. An understanding of the microstructural changes occurring during irradiation is critical for the development of advanced materials as well as for modeling property changes.

The scope of this symposium will focus on the microstructural changes occurring in solids during ion, electron, neutron, gamma ray, or x-ray irradiation. This symposium, which is the seventh in a series held every two years since 2003, is intended to bring together researchers working on different materials systems and radiation-induced phenomena so that similarities and differences in radiation effects can be compared and integrated. Materials of interest include all nuclear structural, fuel, and functional materials. Both experimental and theoretical studies are solicited with a particular emphasis on linking state-of-the-art modeling with experimental observation of materials microstructure and property evolution.

Specific topics where contributions are encouraged include:

- Radiation damage in fusion and fission reactor materials
- Radiation-induced segregation, precipitation, amorphization, and recrystallization
- Radiation-induced helium bubble formation, swelling, and creep
- Mechanisms of deformation and fracture in irradiated materials
- Radiation effects simulation and evaluation techniques
- Integrated phenomena in reactor materials
- Microstructural changes in metallic and ceramic fuels
- Advanced oxide dispersion-strengthened, austenitic, and ferritic-martensitic steel
- Refractory metals, carbon, and ceramic materials

### **ORGANIZERS**

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### **SYMPOSIUM SPONSOR**

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