

Webinar Invite

Join us on May 24, 2023 8:30 a.m. EDT (UTC-4)

Graphite-Molten Salt Interactions

The new High Temperature Reactor (HTR) designs being considered for future Gen IV nuclear reactor deployment include designs utilizing molten salt as the primary coolant. These molten-salt cooled, graphite core designs pose new material compatibility challenges that are not considered within the gas-cooled HTR designs that have been previously built and operated. In MSR, graphite is not only exposed to fast neutron irradiation but also in continuous contact with the coolant molten salt, the fuel salt, or both, depending on the design. The continuous operation in contact with the molten salts is expected to affect graphite's local composition and microstructure, which in turn impacts the mechanical, thermal, and irradiation-resistance properties of the graphite. These issues are currently under investigation within the DOE Advanced Reactor Technologies (ART) graphite program and will be presented at this seminar.

Free webcast!



May 24, 2023
8:30 am EDT (UTC-4)

Register NOW at:

<https://attendee.gotowebinar.com/register/7530835943262809689>

Who should attend:

policy makers, managers, regulators, students, general public



Dr. Nidia C Gallego is a Distinguished Research Scientist in the Physical Sciences Directorate at Oak Ridge National Laboratory (ORNL). She earned her MSc and PhD in Materials Science and Engineering from Clemson University (Clemson, SC) and joined ORNL in December 2000. Her research interests include, among others, physical and chemical properties of carbon materials, effects of neutron irradiation on graphite and carbon materials for use on space power systems. Currently, Nidia is the ORNL Technical Lead for the graphite activities for both the GCR and MSR campaigns funded by the US DOE Advanced Reactor Technologies (ART) Program, and the Task Lead for Production of Carbon-Bonded Carbon Fiber (CBCF) components as part of the Radioisotope Power Systems Program funded by NASA.

Upcoming Webinars

21 June 2023, Panel Session International Knowledge Management and Preservation of SFR

Cal Doucette, ARC Energy, Canada; Joel Guidez, retired CEA, France; Hiroki Hayafune, JAEA, Japan; Patrick Alexander, Terrapower, USA; Ron Omberg, PNNL, USA

26 July 2023, Off-gas Xenon Detection and Management in Support of MSRs, Dr. Hunter Andrews, ORNL, USA; Dr. Praveen Thallapally, PNNL, USA

31 August 2023, Corrosion and Cracking of SCWR Materials, Prof. Lefu Zhang, Shanghai Jiao Tong University, China