



CONsortium of Nuclear sECurity Technologies



Cynthia Adkins, Ph.D.

Idaho National Laboratory

Thursday, July 10
2:00 - 3:30 pm
BSB 3.03.02

Post-irradiated Examination of Nuclear Fuels and Materials at Idaho National Laboratory

Cynthia Adkins is a senior R&D Scientist in the Fuels Post-Irradiated Examination Department at Idaho National Laboratory's (INL) Materials and Fuels Complex (MFC) in Idaho Falls, Idaho. Dr. Adkins has an expert role in the determination of thermophysical and thermochemical properties and microstructural characterization of nuclear fuels and nuclear related materials in support of basic research and reactor experiments. She is involved in setting technical approach and direction for projects dealing with a variety of state-of-the-art thermal analysis techniques. Her focus area is on metallic fuel alloys for use in advanced reactor concepts such as Sodium, SMRs and microreactors. She has received the Department of Energy's Nuclear Energy Fuel Cycle R&D Excellence Award for her research in measuring thermal conductivity of irradiated metallic fuel. She is a member of two international project groups through the Nuclear Energy Agency (OECD-NEA) to develop fuel properties bulletins and thermodynamic properties databases for use by the international nuclear community. She also serves on the executive and programming committees for the American Nuclear Society's Material Science and Technology Division as well as The Minerals, Metals, and Materials Society's Nuclear Materials Committee. Dr. Adkins completed her Ph.D. (2022) and M.S. (2012) in Material Science and Engineering at the University of Florida and her B.S. (1995) in Chemistry from Penn State University. The presentation will provide a general overview of Idaho National Laboratory, the nation's leading nuclear laboratory for energy research and development. Specific focus will be on the post-irradiation examination capabilities and research at the MFC desert site in Idaho. Additionally, information on internships and other opportunities will be shared.