



CONsortium of Nuclear sECurity Technologies



Jennifer Watkins, Ph.D.

Idaho National Laboratory

Thursday, June 5

2:00 - 3:30 pm

BSB 3.03.02

Nuclear Fuel Fabrication and INL Opportunities

Jennifer Watkins is a nuclear fuels materials engineer in the Advanced Fuel Fabrication and Development group at Idaho National Laboratory's Materials and Fuels Complex in Idaho Falls, ID. Dr. Watkins' experience and research are focused on development, synthesis, fabrication, and characterization of high uranium density nuclear fuels, including ceramic nitrides, carbides, borides, oxides, hydrides, and silicides, and uranium bearing metallic alloys. Additional research focuses include novel fabrication efforts for materials and sensors for harsh environments via additive manufacturing applications. She is a former Department of Energy Nuclear Energy University Program graduate fellow and Idaho National Laboratory graduate fellow. She is a recipient of the 2023 Idaho National Laboratory Director's VISION Award for her work in developing ceramic fuel fabrication capabilities at INL. She previously served as a member and Recruitment Committee Chair of the American Ceramic Society's President's Council of Student Advisors (2015-2018). Additionally, she currently serves on the Communications Committee for the U.S. Women in Nuclear organization as the lead for Nuclear Science Week overseeing the Most Reactive Chapter program. She is also a member of the CARES committee for the American Nuclear Society. Dr. Watkins completed her Ph.D. (2022), M.Eng. (2019), and B.S. (2016) in Materials Science and Engineering at Boise State University, which included coursework in Nuclear Engineering (Kansas State University) and Nuclear Forensics (Washington State University). The presentation will provide a general overview of Idaho National Laboratory, the nation's leading nuclear laboratory for energy research and development. A specific focus will be on the nuclear fuel fabrication capabilities at the Materials and Fuels Complex at the desert site in Idaho. Additionally, information on internships and other opportunities will be shared.

