

Department of Chemistry Seminar Series – Fall 2020

Science and Engineering for National Challenges

Dr. Aaron Washington

Principal Scientist, Savannah River National Laboratory

Host: Prof. Candice Bridge

October 9, 2020 **10:00 AM** – Zoom

Meeting Room: <https://ucf.zoom.us/j/94833489097> Passcode: 655844



This presentation will focus on the development of novel approaches to solve issues throughout the DOE complex in the areas of microwave chemistry, D&D and radiation shielding. We first explore the dissolution of spinels in a glassy matrix using microwave chemistry. This process helps with the formation of glass repositories for nuclear waste storage. Secondly, deactivation and decommissioning in nuclear facilities is an issue that needs a considerable amount of research invested. The current governing documents indicating tools, techniques, and technologies date back as far as 30 years in some cases. SRNL is leading the development of safer technologies and practices with the development of various materials and technologies including VR and augmented reality training systems, radiation resistant polymers, radiation shielding foams, and fixatives that create a safer operating environment.