



---

## **Synergy of radiation damage with corrosion processes through a separate effect investigation approach**

**PI:** Djamel Kaoumi – North Carolina State University

**Collaborators:** Blas Uberuaga – Los Alamos National Laboratory;  
Nan Li - Los Alamos National Laboratory

**Program:** NSUF-2.1: CORE AND  
STRUCTURAL MATERIALS

---

### **ABSTRACT:**

This project will focus on investigating the synergy of radiation damage with corrosion processes through a series of separate effect experiments which will look at the effect of irradiation on Fe-based systems and Ni-Based systems and how radiation damage affect corrosion processes. Fe-based systems are of interest for Liquid Metal Cooled Reactors and Ni-Based systems are of interest for Molten Salt Reactors. We will investigate the effects of ion irradiation on metal and effects of ion irradiation on Metal/Oxide interfaces at the IVEM at ANL and post irradiation Atom Probe Tomography will be done at CAES.