Microstructural Properties of Plutonium Oxalates and Oxides as a Function of Processing Conditions

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Structural studies of radioactive materials pose many challenges. Aside from the inherent safety precautions of working with plutonium containing materials, not many plutonium containing compounds have been heavily studied and the self-induced radiolytic damage complicates structural properties characterization. This presentation will summarize studies done to understand the microstructure properties evolution of Pu(IV) oxalate, Pu(III) oxalate and PuO₂ as a function of age and processing conditions.