

Observations Derived from the Characterization of Monolithic Fuel Plates Irradiated As
Part of the RERTR6 Experiment ¹

by

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Paper to be presented at the 27th International Meeting on Reduced Enrichment for
Research and Test Reactors
Prague, Czech Republic
September 24-26, 2007

¹ Work supported by the U.S. Department of Energy, Office of Nuclear Materials Threat Reduction (NA-212), National Nuclear Security Administration, under contract W-31-109-ENG-38.

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Evaluation of the PIE results of the monolithic plates that were irradiated as part of the RERTR-6 experiment has continued. Specifically, comparisons have been made between the microstructures of the fuel plates before and after irradiation. Using the results from the rigorous characterization that was performed on the as-fabricated plates using scanning electron microscopy, it is possible to improve understanding of how monolithic fuel plates perform when they are irradiated. This paper will discuss the changes that occur, if any, in the microstructure of a monolithic fuel plate that is fabricated using techniques like what were employed for fabricating RERTR-6 fuel plates. In addition, the performance of fuel/cladding interaction layers that were present in the fuel plates due to the fabrication process will be discussed, particularly in the context of swelling of these layers and how these layers exhibit different behaviors depending on whether the fuel alloy in the fuel plate is U-7Mo or U-10Mo.