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Abstract

Three Materials Science Problems That Inform the Need for Lujan Radiographic Capability

Mark Bourke, LANL

This talk will attempt to inform the debate concerning merits and focus for development of improved neutron radiographic at the Lujan center by describing three different materials science problems. They benefited from radiographic and tomographic examination using pulsed, steady state neutrons and 250KeV synchrotron X-rays. The three problems are; welding microstructure effects (after Santisteban at ISIS); hydriding of zircaloy (after Grosse and Lehmann at SINQ) and heterogeneity in uranium fuel pellets (after Brown and Hunter at APS).