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Subject: Seminar Announcement - June 11 - Jonathan Kulisek
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The Design and Analysis of an Active Compton Suppressed $LaBr_3$(Ce) Detector System for TRU Assay in Remote-Handled Wastes

Jonathan Kulisek

Nuclear Engineering Dept., Ohio State University

Thursday, June 11, 2009, 10:00 AM, Research Office Building (5700), Rm. O304

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Abstract

Recent studies indicate $LaBr_3$(Ce) scintillation detectors have desirable attributes, such as room temperature operability, which may make them viable alternatives as primary detectors (PD) in a Compton suppression spectrometer (CSS) used for remote-handled transuranic (RH-TRU) waste assay. A CSS with a $LaBr_3$(Ce) PD was designed and its expected performance evaluated using Monte Carlo analysis. The unique design of this unit minimizes the amount of "dead" material between the PD and the secondary guard detector. The results from the Monte Carlo analysis will be presented along with the experimental results.

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