

Abstract Submitted
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SPIDER Progress Towards High Resolution Correlated Fission Product Data¹ DAN SHIELDS, Los Alamos National Laboratory, Colorado School of Mines, KRISTA MEIERBACHTOL, FREDRIK TOVESSON, CHARLES ARNOLD, Los Alamos National Laboratory, RICK BLACKELEY, University of New Mexico, TODD BREDEWEG, MATT DEVLIN, Los Alamos National Laboratory, ADAM HECHT, University of New Mexico, MARIAN JANDEL, JUSTIN JORGENSEN, RON NELSON, MORGAN WHITE, Los Alamos National Laboratory, SPIDER TEAM — The SPIDER detector (SPectrometer for Ion DEtermination in fission Research) is under development with the goal of obtaining high-resolution, high-efficiency, correlated fission product data needed for many applications including the modeling of next generation nuclear reactors, stockpile stewardship, and the fundamental understanding of the fission process. SPIDER simultaneously measures velocity and energy of both fission products to calculate fission product yields (FPYs), neutron multiplicity (ν), and total kinetic energy (TKE). A detailed description of the prototype SPIDER detector components will be presented. Characterization measurements with alpha and spontaneous fission sources will also be discussed. LA-UR-14-24875

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