Abstract Submitted
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SPIDER: a path to 1 amu resolution of neutron-induced fission fragments[1] C.W. ARNOLD, F. TOVESSON, K. MEIERBACHTOL, A.B. LAPTEV, T.A. BREDEWEG, M. JANDEL, R.O. NELSON, M.C. WHITE, LANL — A time-of-flight fission fragment detector capable of determining the velocity and total energy of various nuclear species to high precision has been designed for beam experiments at LANL and tested with a ^{252}Cf source. A system of thin carbon foils, electron reflectors, microchannel plates, and delay-line anodes are presently being optimized to measure the path length and velocity of fission fragments to high precision. Future incorporation of an ionization chamber will complete one leg of the SPIDER detector and pave the way for 1 amu resolution measurements of neutron-induced fission fragments. The present capabilities of SPIDER will be discussed.

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C.W. Arnold
LANL

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