

Abstract Submitted
for the FWS16 Meeting of
The American Physical Society

Search for Ternary Fission Events and Analysis With the NIFFTE Time Projection Chamber ALEX KEMNITZ, California Polytechnic State University San Luis Obispo, NIFFTE COLLABORATION — Ternary fission is a rare occurrence in which three particles are produced from a single fission event. In most cases the third particle is an alpha or light ion but in some cases the fission can produce three fragments of nearly equal masses. Using tracked fission event data recorded by the NIFFTE collaboration for neutron-induced fission of actinide targets, a series of refined cuts was made to isolate all possible ternary events. An interactive 3-dimensional rendering was constructed in order to visualize these events. The ternary fission candidates were analyzed to determine the average opening angles and fragment energies so that their production rates and properties may be investigated. Preliminary results from these studies will be presented.

Alex Kemnitz
California Polytechnic State University San Luis Obispo

Date submitted: 07 Oct 2016

Electronic form version 1.4