Abstract Submitted
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Photo-fission Product Yield Measurements at E_γ=13 MeV on ^{235}U, ^{238}U, and ^{239}Pu.[1] W. TORNOW, M. BHIKE, S. W. FINCH, FNU KRISHICHAYAN, Department of Physics and TUNL, Duke University, Durham, North Carolina 27708, USA, A. P. TONCHEV, Lawrence Livermore National Laboratory, Livermore, California 94550, USA — We have measured Fission Product Yields (FPYs) in photo-fission of ^{235}U, ^{238}U, and ^{239}Pu at TUNL's High-Intensity Gamma-ray Source (HIγS) using mono-energetic photons of E_γ=13 MeV. Details of the experimental setup and analysis procedures will be discussed. Yields for approximately 20 fission products were determined. They are compared to neutron-induced FPYs of the same actinides at the equivalent excitation energies of the compound nuclear systems. In the future photo-fission data will be taken at E_γ=8.0 and 10.5 MeV to find out whether photo-fission exhibits the same so far unexplained dependence of certain FPYs on the energy of the incident probe, as recently observed in neutron-induced fission, for example, for the important fission product ^{147}Nd [1].
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