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Prompt-fission observable calculations for actinids by TALYS

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We present the fission fragment decay calculation results by the nuclear reaction model code, TALYS, that adopts the Hauser-Feshbach statistical decay theory to the de-excitation of fission fragments evaporating by emitting neutron and γ. TALYS incorporates so-called "Fission Fragment Database" which consists of yield Y, charge Z, mass A, excitation energy E_x, spin J, and parity Π, {\it i.e.}, $Y_{\rm ff}(Z, A, E_x, J, \Pi)$. The data are prepared for TALYS' input by the other fission models such as GEF, HF3D, and SPY. We examine the fission fragment data produced by the GEF code. The calculated independent fission product yield $Y_{\rm I}(A)$, average prompt fission neutron emission $\bar{\nu}$, neutron multiplicity distribution $P(\nu)$, and prompt fission neutron spectra will be discussed.

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