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Prompt decay calculation using primary fission yield and TKE obtained from 4-D Langevin model

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For the fission reaction, the Langevin model simulates the fission process from nuclear deformation after forming a compound nucleus up to scission. We have developed 4-dimensional Langevin model and succeeded in describing the fission fragment yield and total kinetic energy (TKE) as a function of fragment mass number over a wide mass range from actinide to superheavy nuclei. We performed Hauser-Feshbach statistical decay calculation for evaluating fission observables using the fission fragment yield and TKE obtained from our 4-dimensional Langevin model.

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