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Next generation fission product data for spent fuel/reactors

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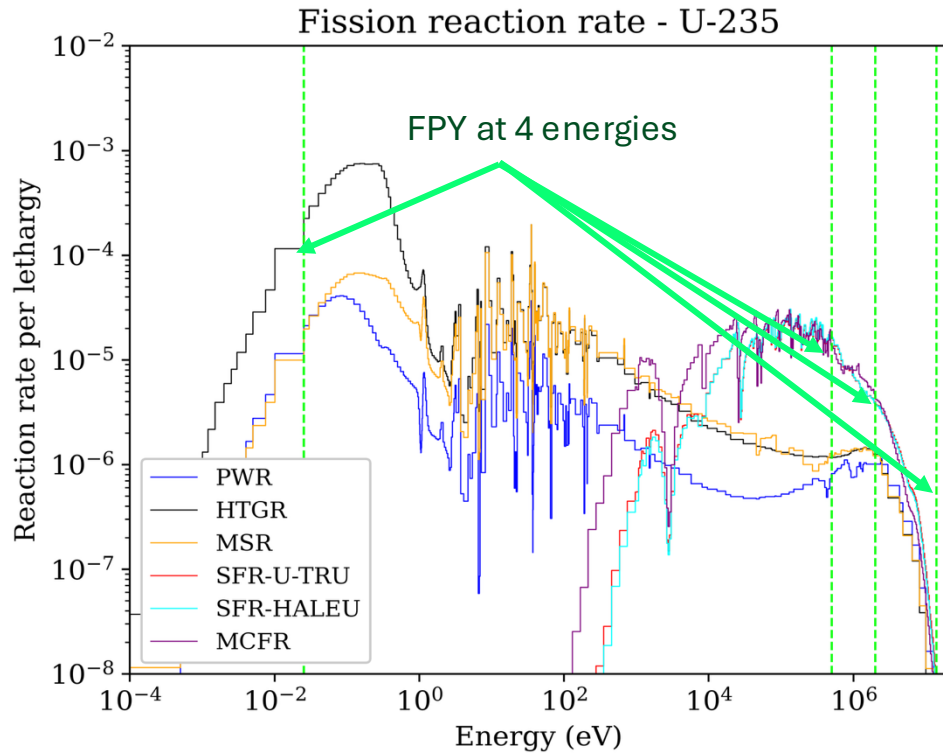


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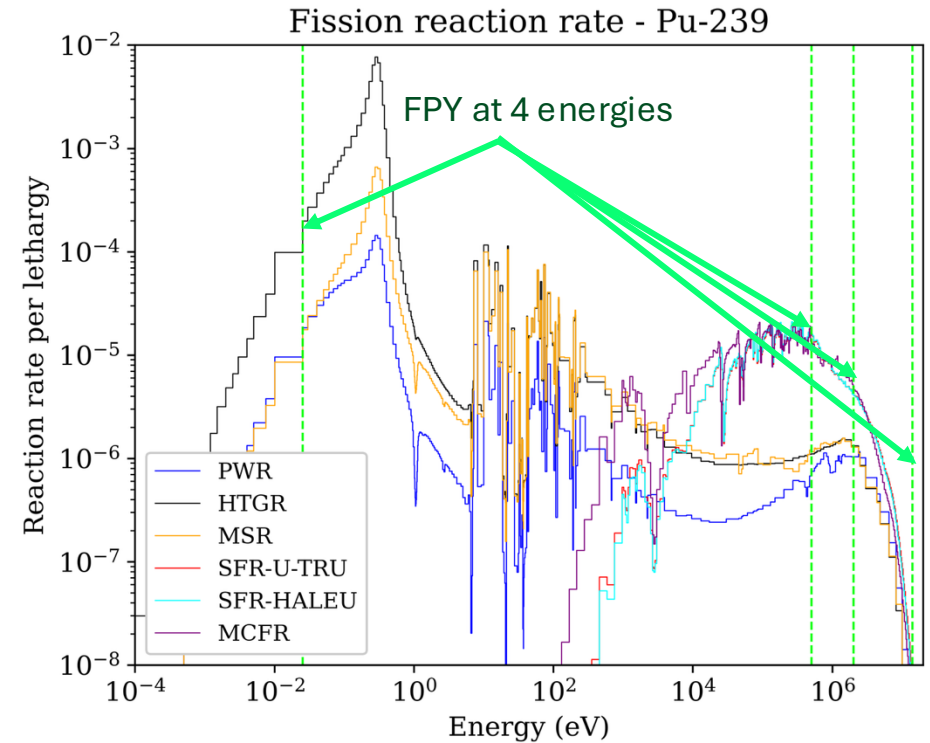
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U²³⁵ and Pu²³⁹ fission rates for 6 different advanced reactors: Most fissions occur between two FPY data points: 0.0253 eV and 0.5 MeV



Fission rate varies up to 6 orders of magnitude over energy



Key terms in reactor/spent fuel applications:

Nuclide i fission reaction rate:
$$N_i(t) \int_0^\infty \sigma_{f,i}(E, T) \phi(E, t) dE$$

Fission product j production rate:
$$N_i(t) \int_0^\infty \sigma_{f,i}(E, T) \phi(E, t) Y_{f,i \rightarrow j}(E) dE$$

NEED: Independent fission product yields
- energy resolution
- explicit correlations