



Decay Data Library In ENDF/B-VII

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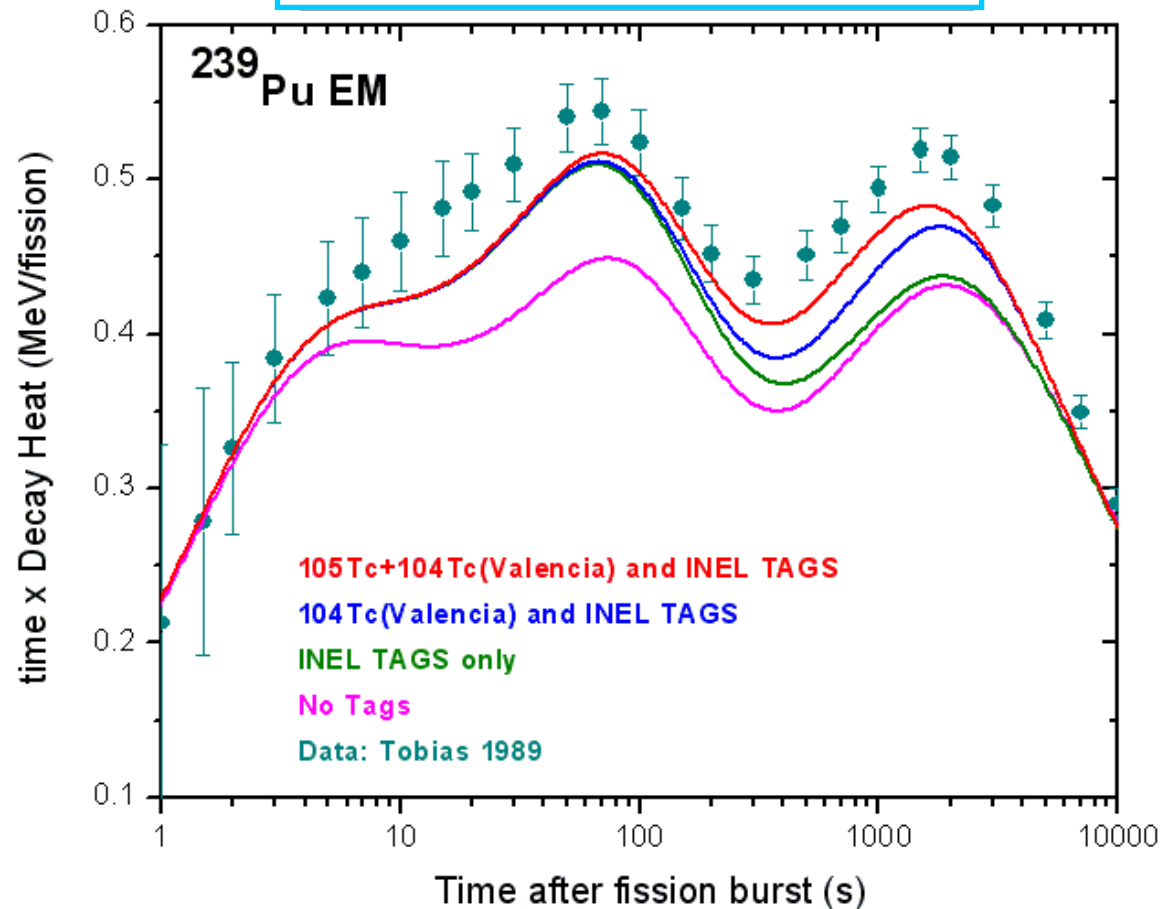
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Decay Heat Calculations

- New TAGS data from Valencia/Surrey collaboration
- Experiments performed in ISOLDE and Jyvaskyla
- Only 2 nuclides considerably improved the prediction of EM decay heat

$$\text{Decay Heat}(t) = \sum \lambda_i N_i(t) E_i$$

E_i : Energy released in decay



Delayed Neutrons

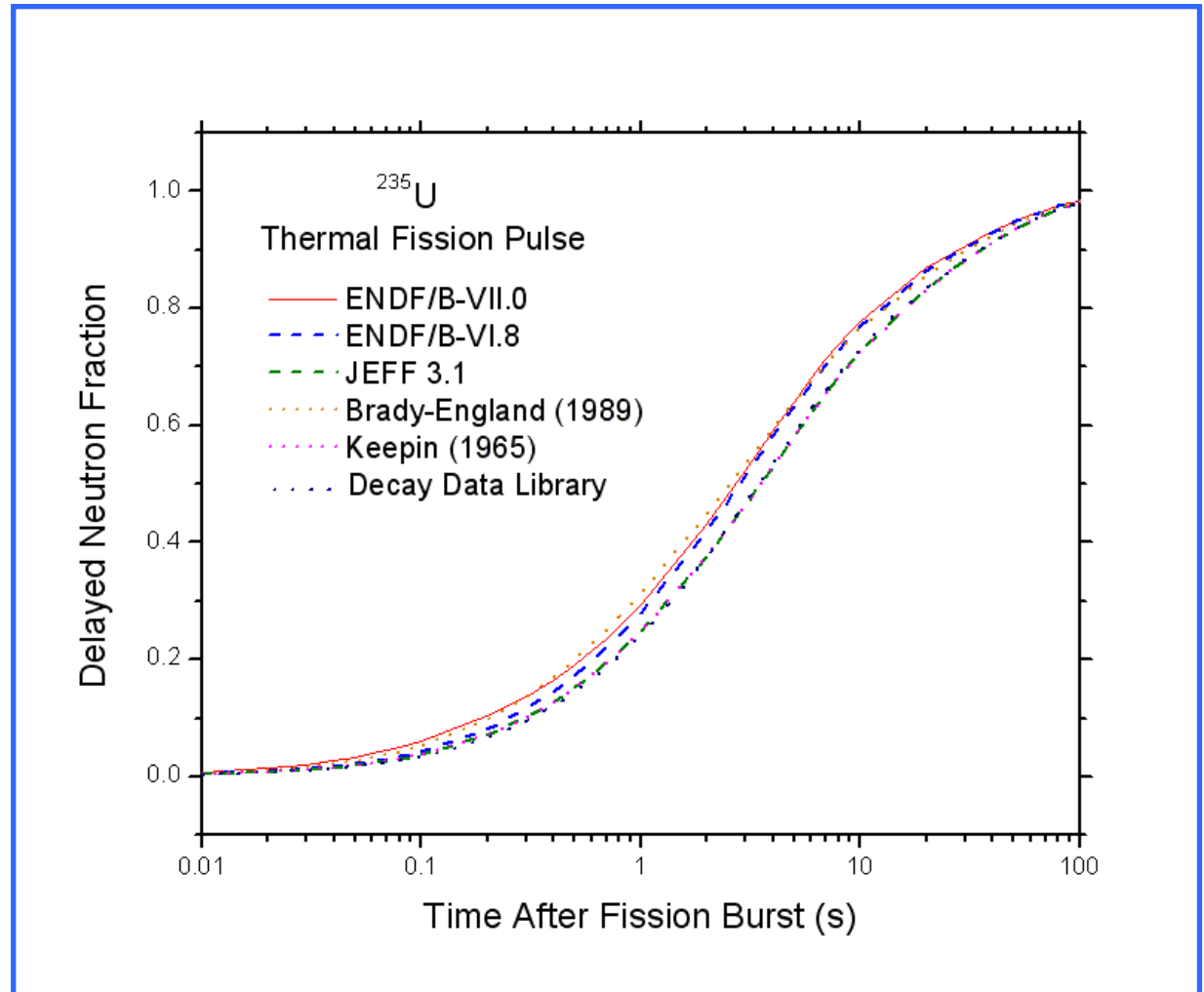
$$V_d = 0.0159/\text{fission}$$

(using ENDF/B-VII.0 decay data library and JEFF-3.1 fission yields)

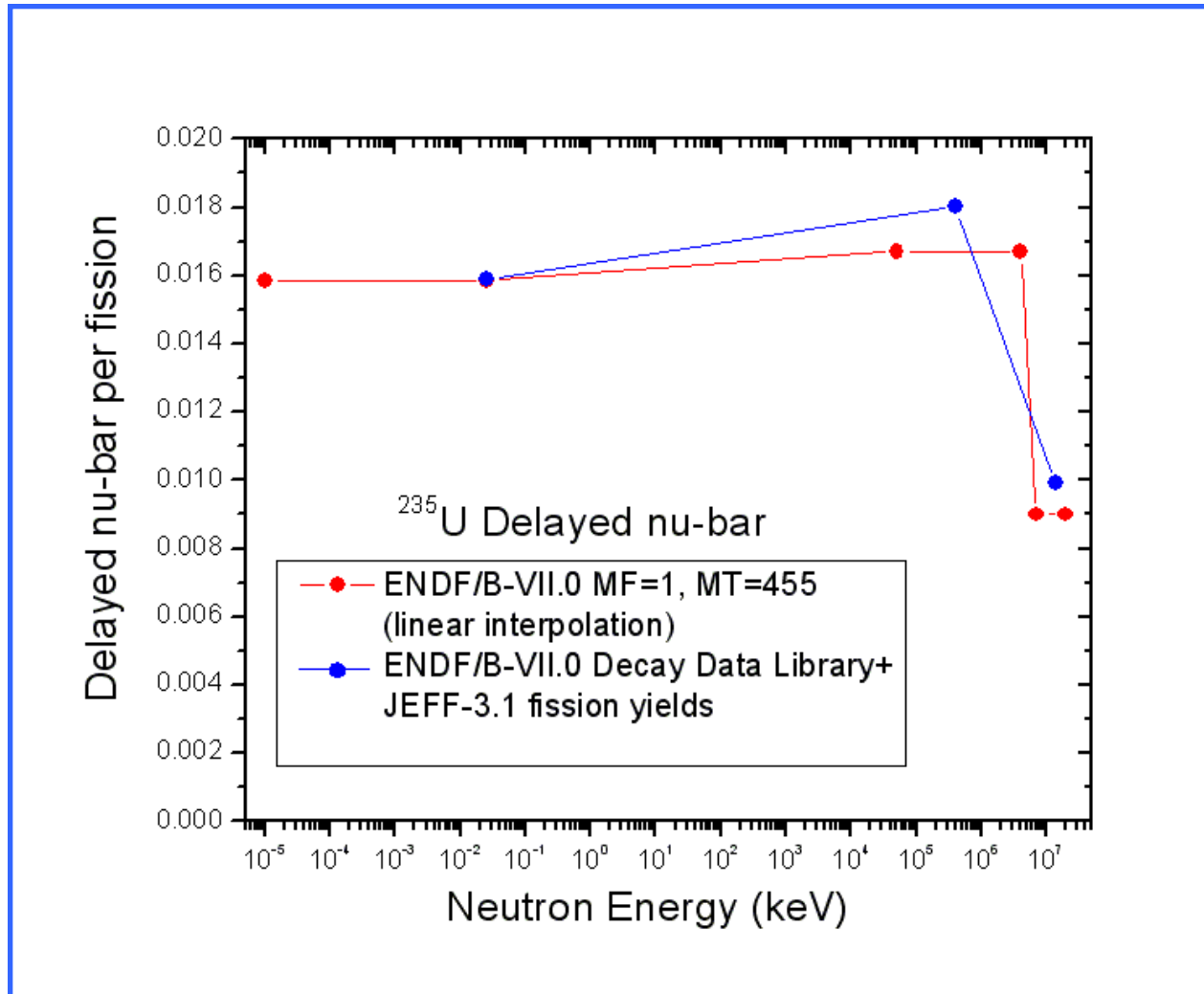
Very close to Keepin and JEFF-3.1 time dependence

ENDF/B-VII.0:

$$V_d = 0.01585/\text{fission}$$



Delayed Neutrons



Summary

- ❑ New decay library as part of ENDF/B-VII.0
- ❑ Please send comments before final release
- ❑ Validated with Decay Heat and Delayed Neutron calculations.
- ❑ Sensitivity study to obtain list of priority nuclides, feedback to experimenters.