

^{235}U , ^{238}U and ^{239}Pu JEFF-3.3T1 evaluations

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Completely new evaluations

- New FILES 2,
- Calculations done with the TALYS code¹,
- New softer prompt fission neutron spectra, with new prompt neutron multiplicity,
- New OMP parameters :
 - New elastic and inelastic cross sections,
 - → New (n,γ) cross sections,
 - ...,
- Fission cross sections from Standards, but close to the BRC model calculation,
- Covariances (FILE 33).

1. TALYS 1.6 developed by A.J. Koning et al.

^{235}U , ^{238}U and ^{239}Pu : what's new

^{235}U

- Fission spectra,
- Multiplicity,
- OMP parameters,
- Fission standards,
- FILES 2,
- Covariances (T6^1).

^{238}U

- Fission spectra,
- Multiplicity,
- OMP parameters,
- Fission standards,
- Covariances (COMAC^2).

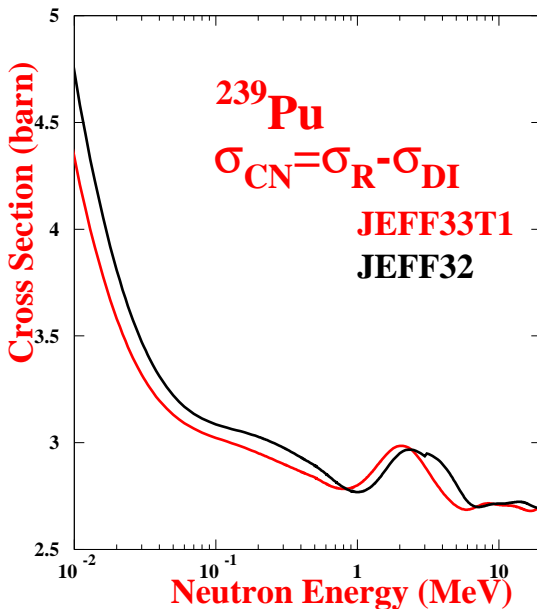
^{239}Pu

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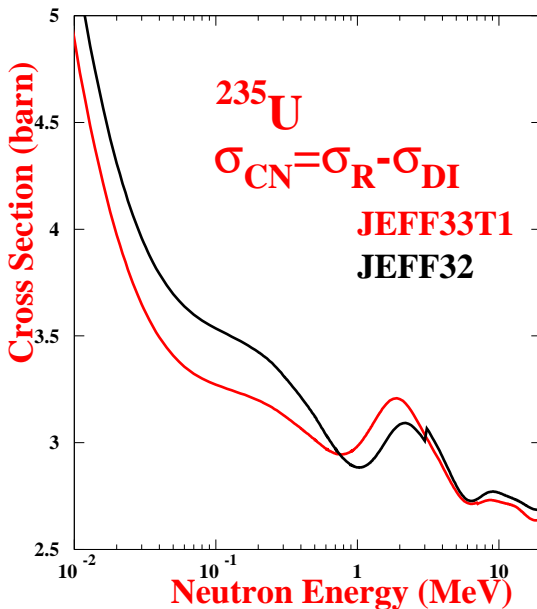
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1. TASMAN code developed by A.J. Koning and D. Rochman
 2. COMAC, covariance library from CEA/Cadarache

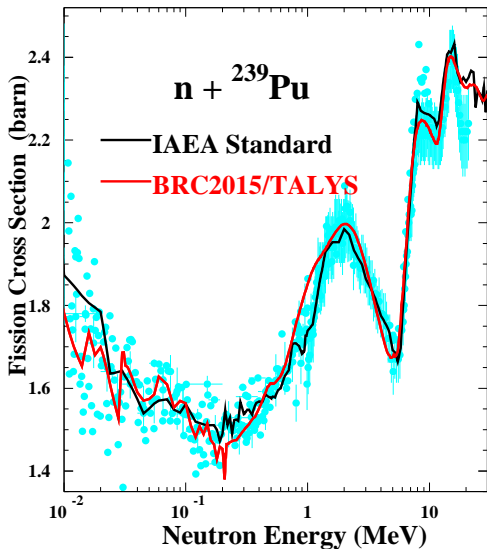


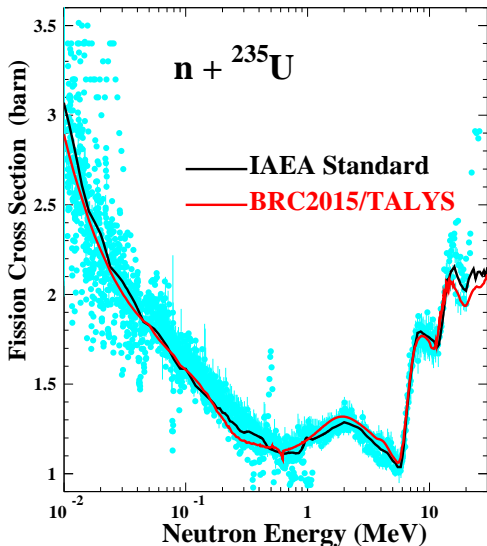
^{239}Pu , ^{235}U : new OMP parameters \rightarrow new $\sigma_{C.N.}$

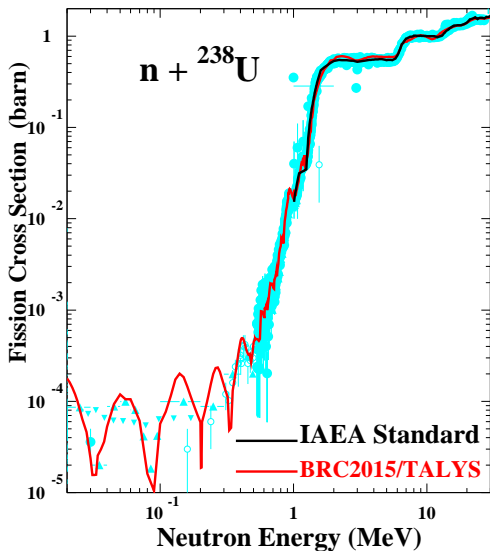


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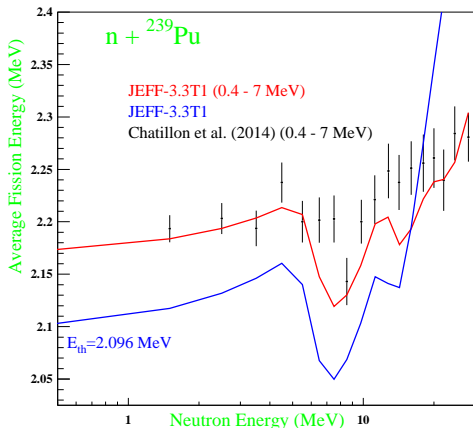






^{239}Pu and ^{235}U : average fission energy

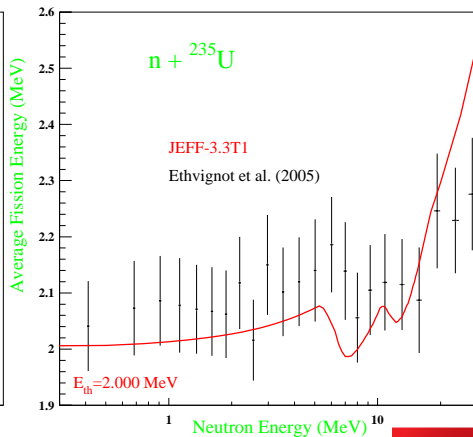
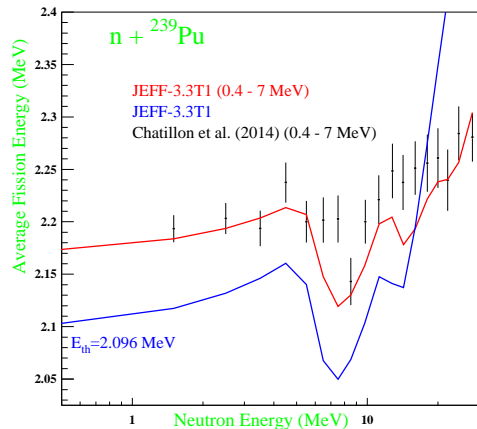
^{239}Pu



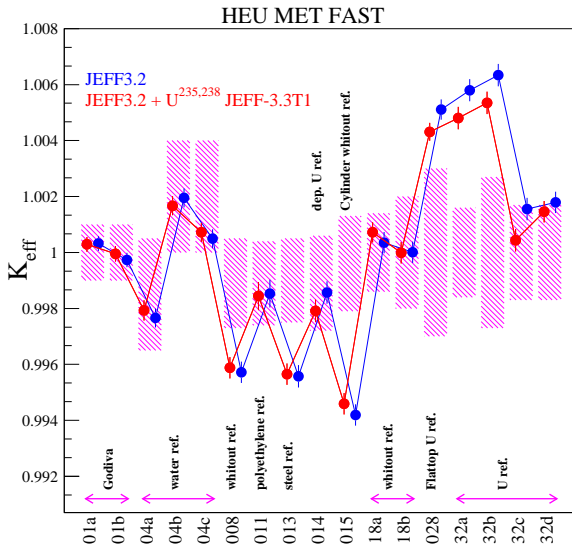
^{239}Pu and ^{235}U : average fission energy

^{239}Pu

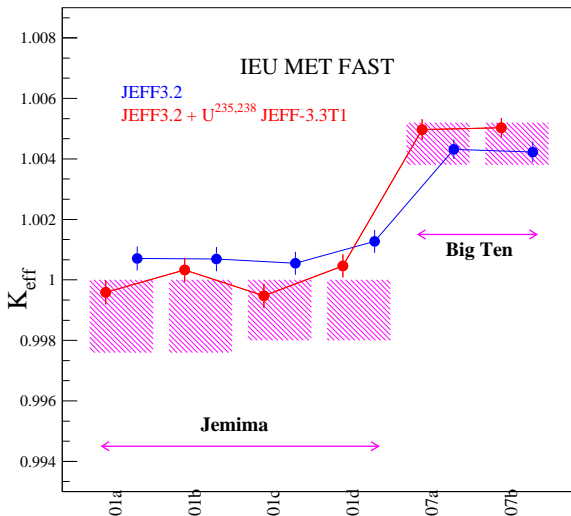
^{235}U



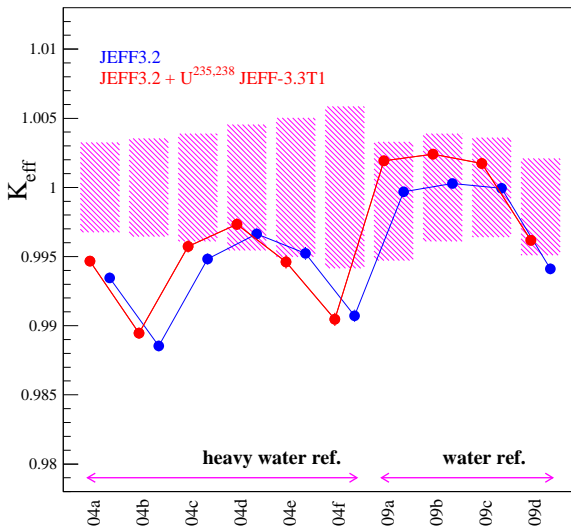
JEFF-3.2 + $^{235,238}\text{U}$ JEFF-3.3T1

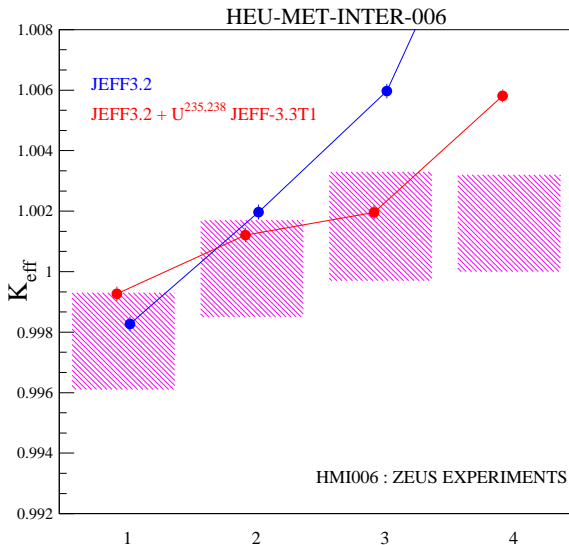


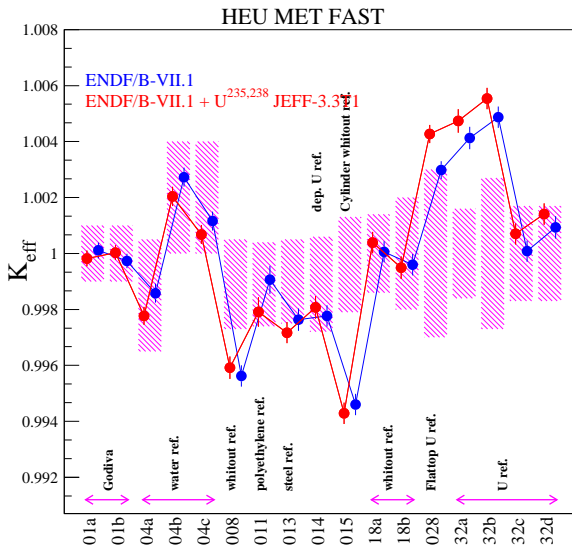
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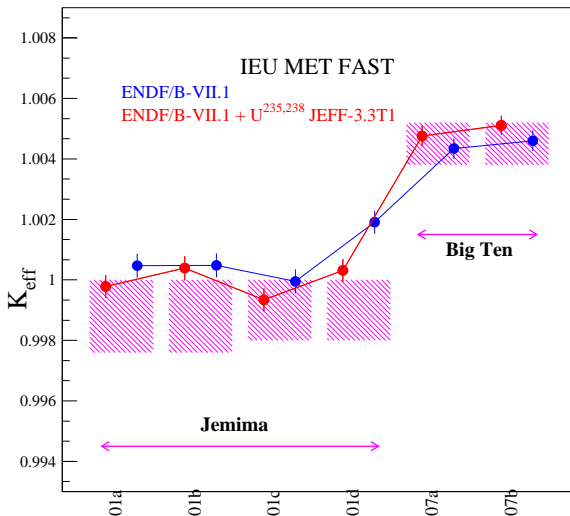
HEU SOL THERM



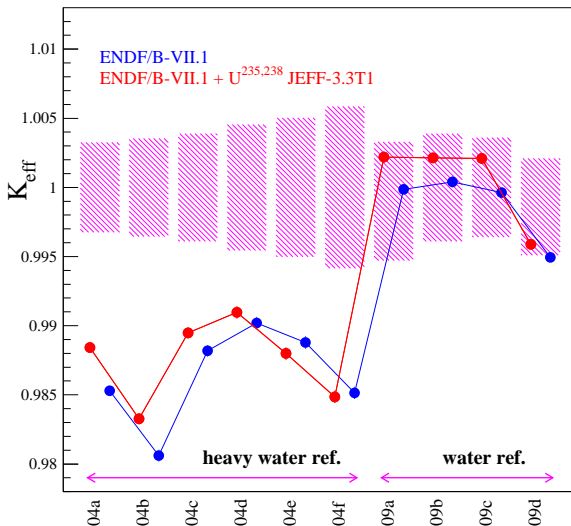


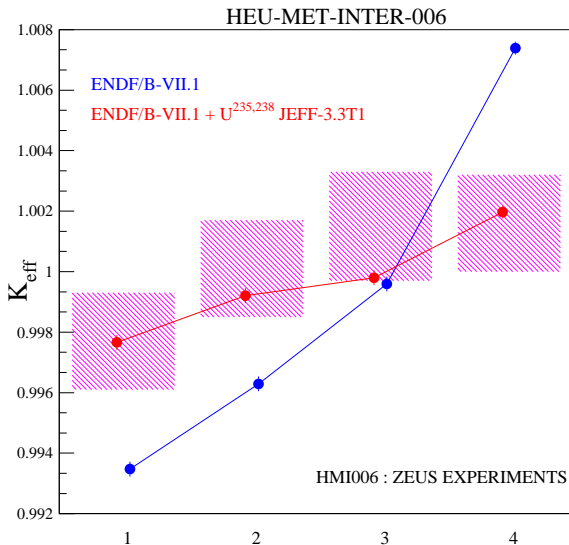


ENDF/B-VII.1 + $^{235,238}\text{U}$ JEFF-3.3T1

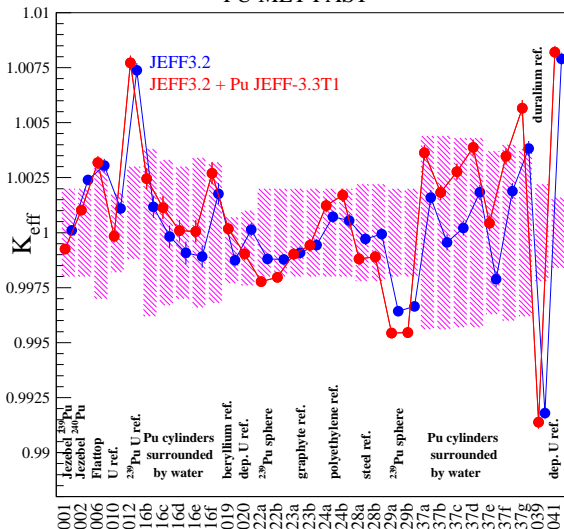


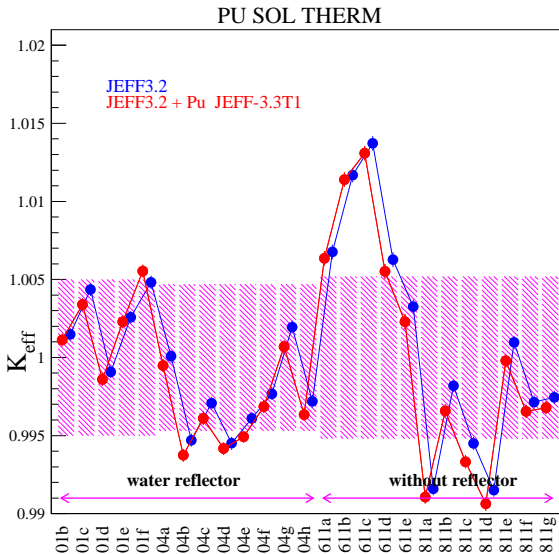
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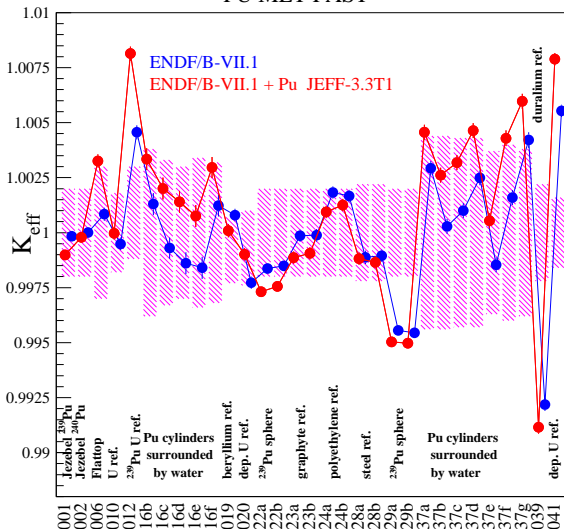


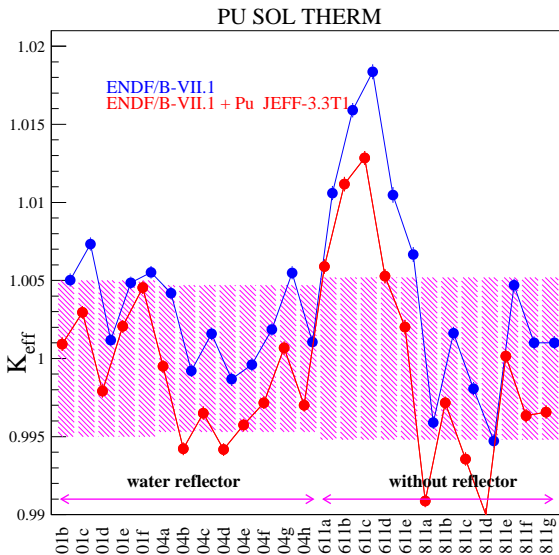
PU MET FAST





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Benchmarks

^{239}Pu benchmarks and $^{235,238}\text{U}$ benchmarks : results obtained with JEFF-3.3T1 are at least as good as with JEFF-3.2.