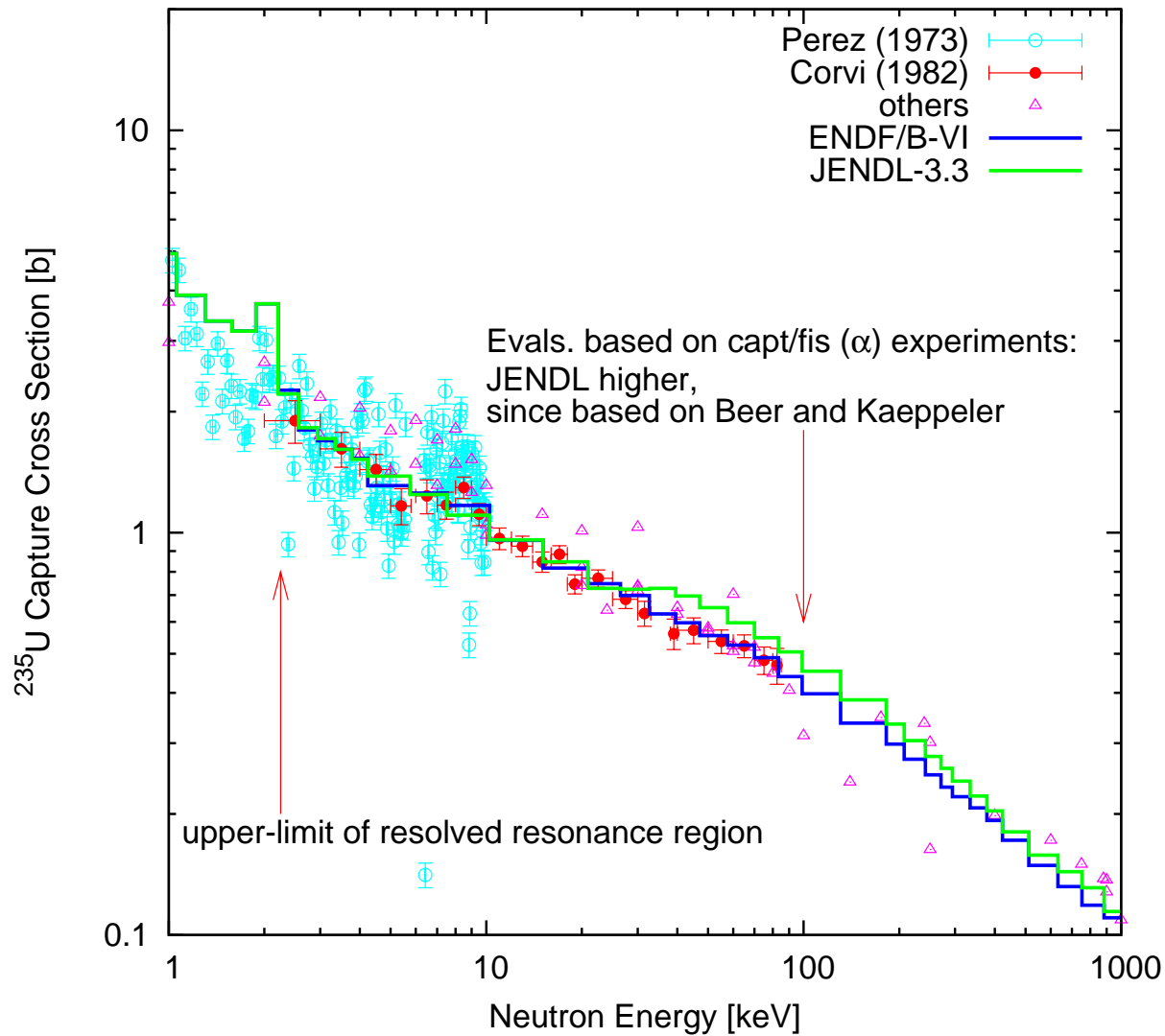

Questions on ^{235}U Capture in 10–100 keV Range

T. Kawano, M.B. Chadwick

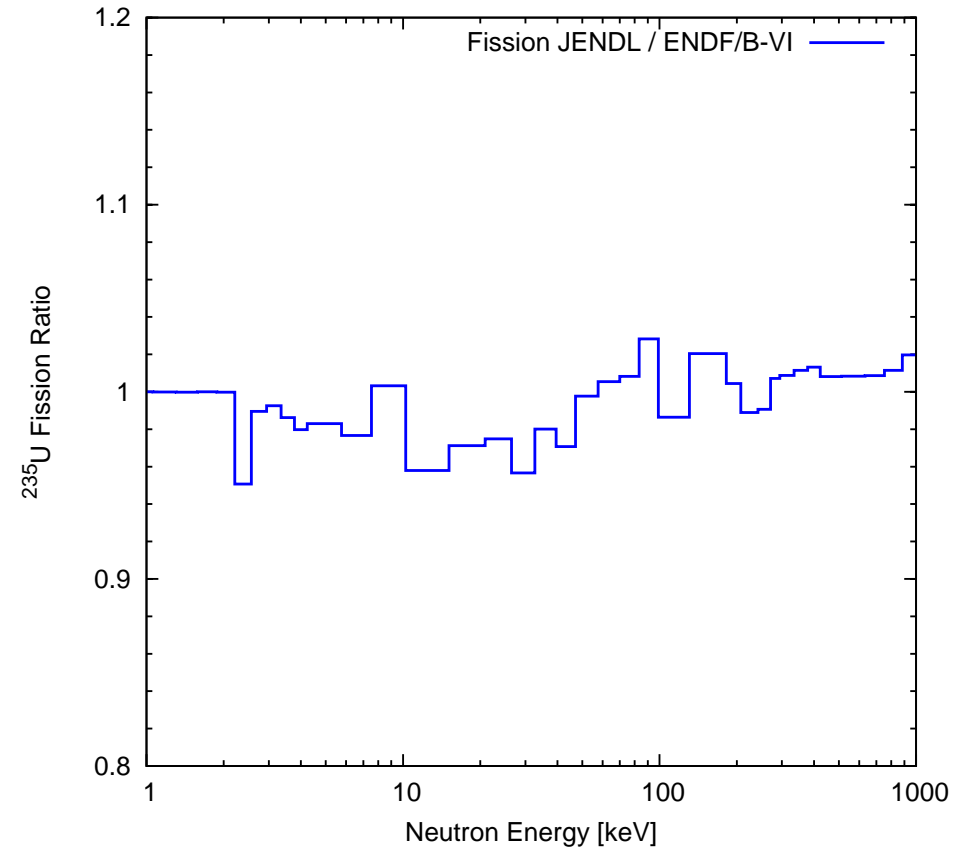
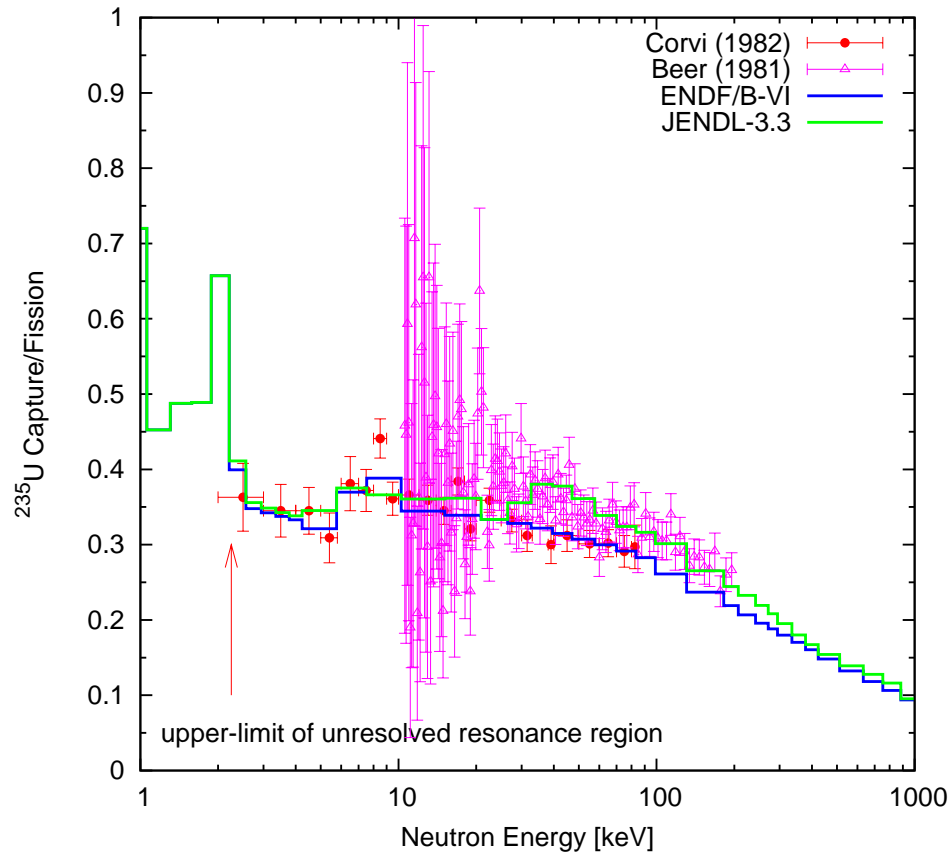
U-235 Capture Evaluation

- Inconsistent experimental data yield different evaluations — ENDF/B-VI and JENDL-3.3 — in the energy range of 10 keV to several hundreds keV.
 - U-235 capture measurements
 - Perez, et al., 1973
 - Corvi et al., 1982
 - α value (capture to fission ratio)
 - Beer and Käppeler, 1981
- Need to better understand capture cross section in this energy region.
- We would also need to do integral testing (e.g. GODIVA k_{eff}) on any modification.

Comparison of U-235 Capture with Exp. Data



Comparison of Alpha with Exp. Data



Evaluations based on the α value depend on the evaluated fission cross section.