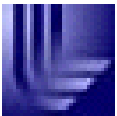


^{240}Am Evaluation

D.A. Brown, J. Pruet for LLNL/CNP Group

- What we did
- Cross sections
- Problems



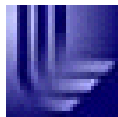
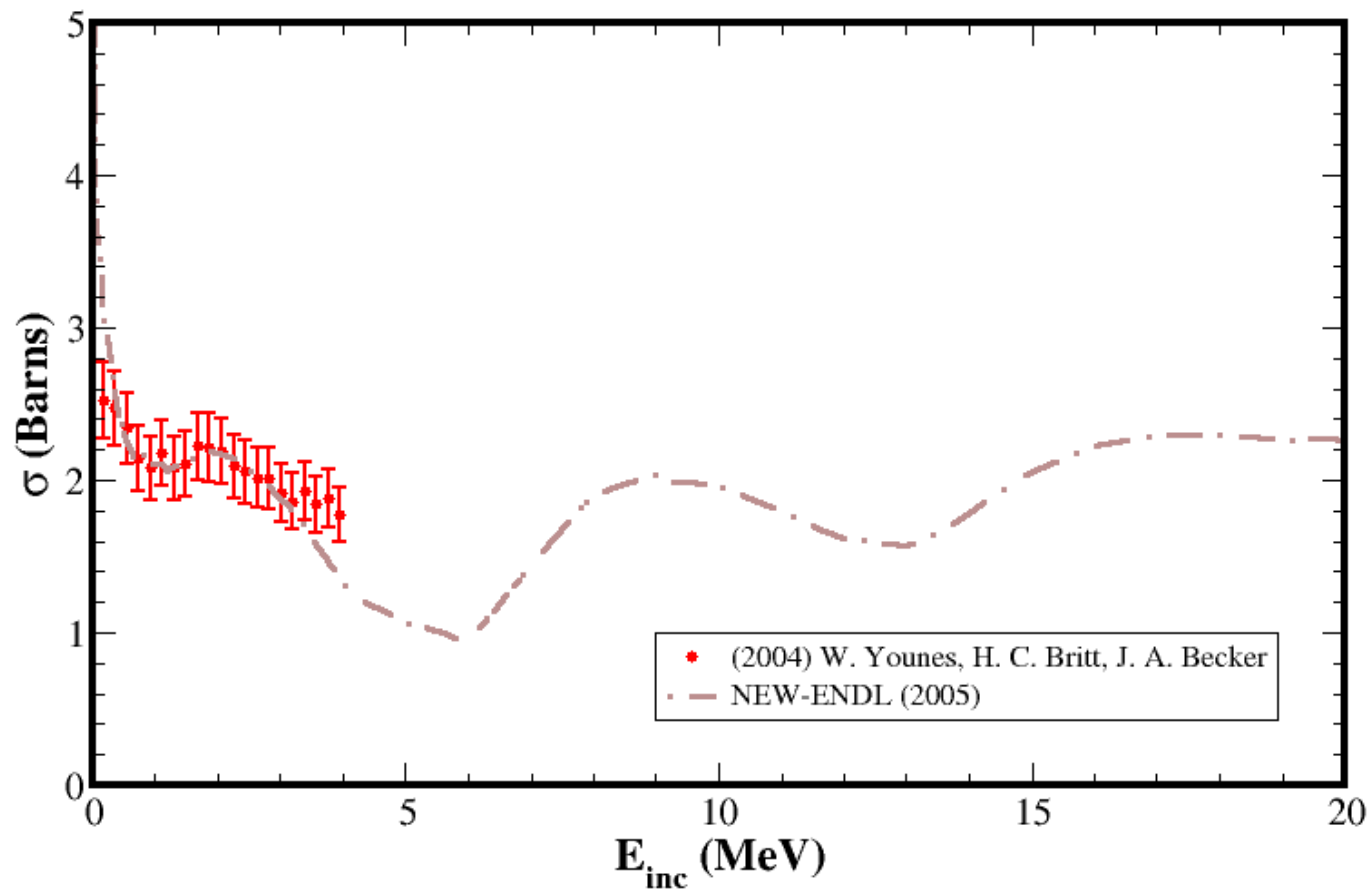
What we did

- Non-(n,n' [i]) reactions using TALYS, FLAP-2.2 OMP, RIPL parameters
- (n,n' [i]), outgoing particle dists. from EMPIRE using Sukhovistkii OMP, RIPL parameters.
Renormalized total (n,n') to match TALYS calcs.
- Fission outgoing distributions, $\bar{\nu}$, etc. stolen from ^{242}Am
- MF=2 only contains scattering length



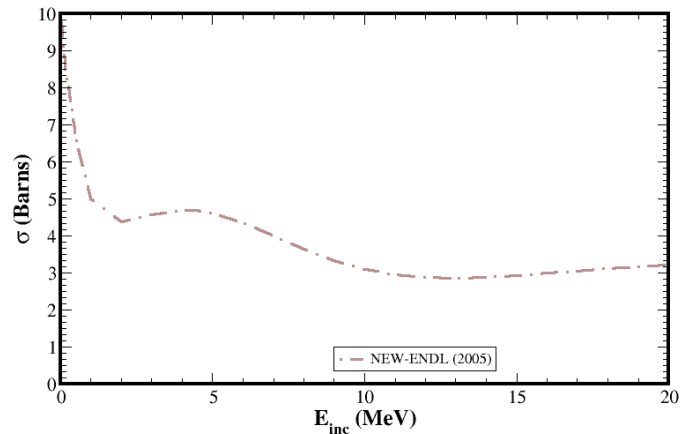
Fission was excellent match

$^{240}\text{Am}(n,\text{Fission})$

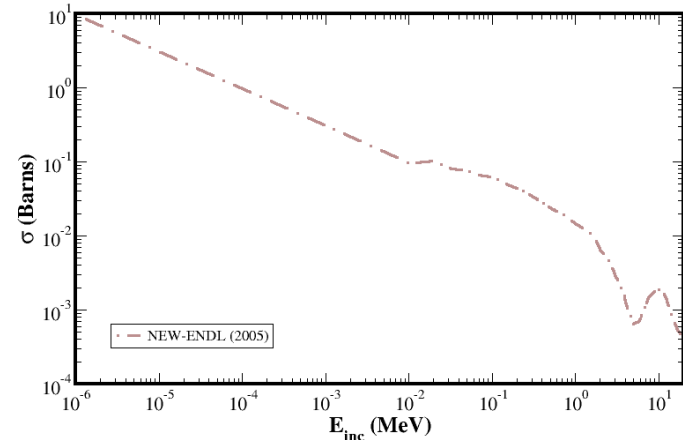


Other reactions from TALYS

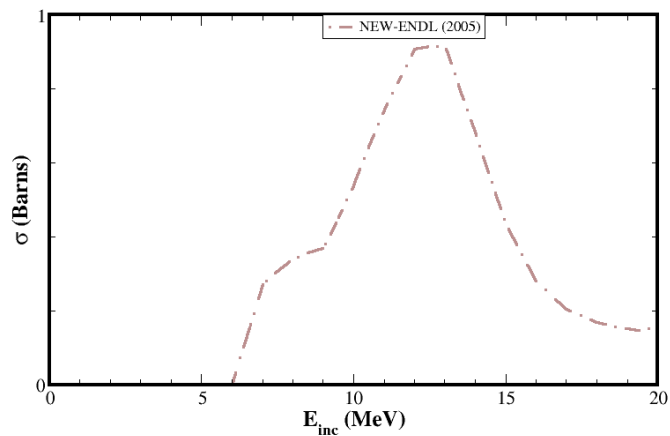
$^{240}\text{Am}(n,\text{Elastic})$



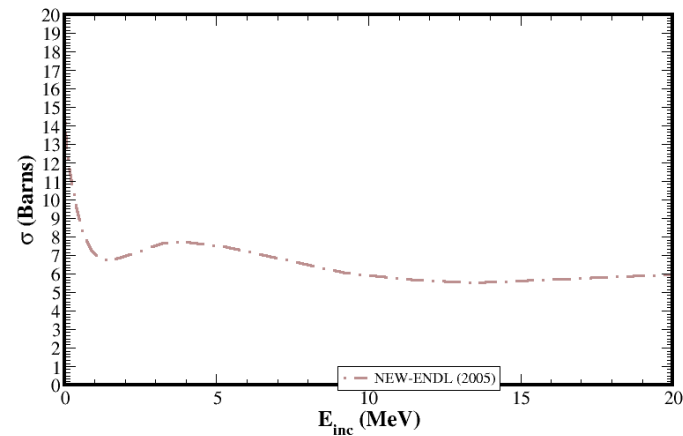
$^{240}\text{Am}(n,\text{gamma})$



$^{240}\text{Am}(n,2n)$



$^{240}\text{Am}(n,\text{Total})$

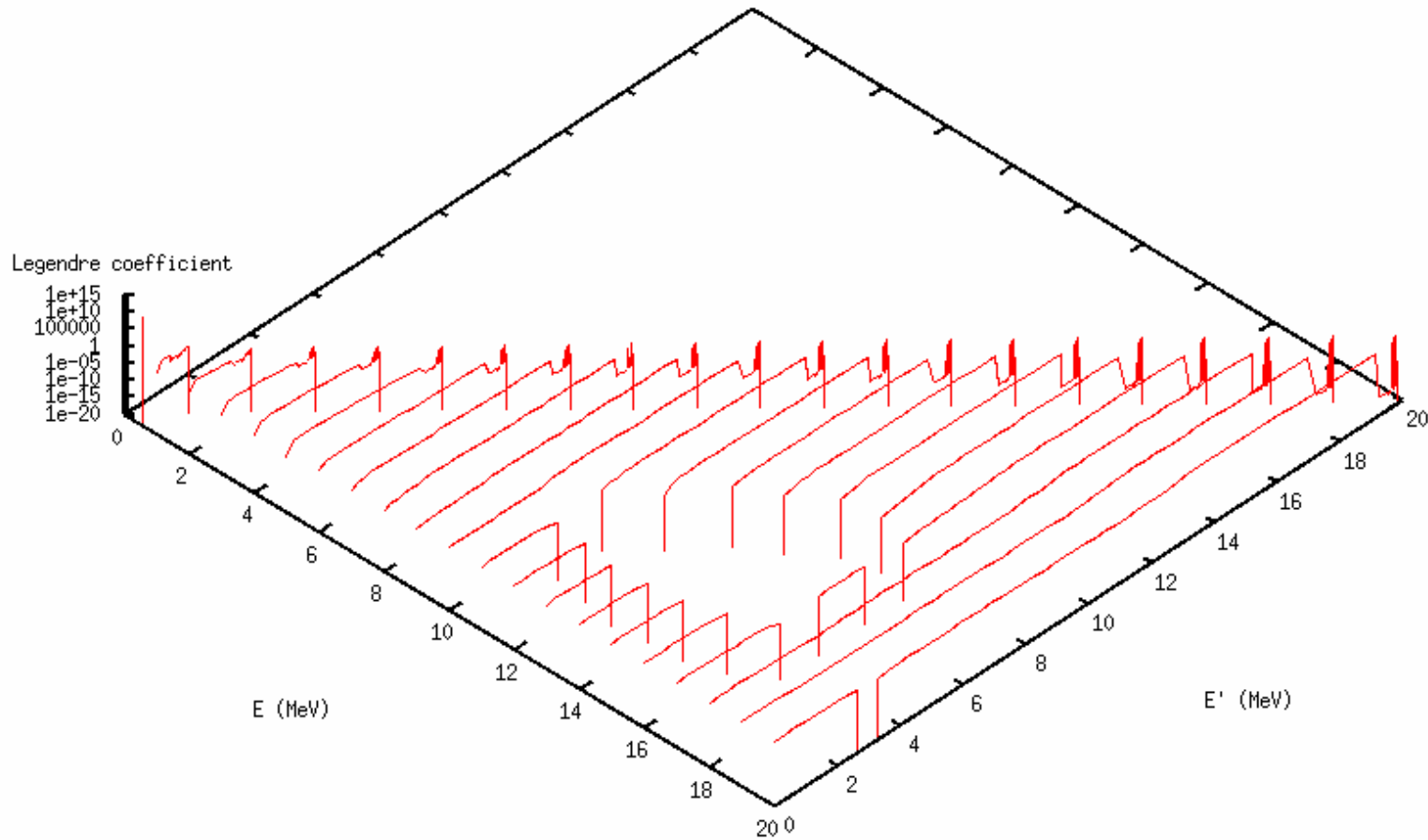


Remaining issues

- Outgoing distributions don't go down to thermal energies, but cross-sections do
- Imperfect energy balances
- (n,n') outgoing distribution crashes NJOY



Large hole in outgoing neutron dist.



Issue with EMPIRE calculations?

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