
REVIEW OF NEUTRON CROSS SECTION EVALUATIONS FOR FISSION PRODUCTS

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Review of neutron cross section evaluations for fission products ($Z = 31 - 68$) included in 5 major evaluated nuclear data libraries was performed. The aim of the project, conducted under the WPEC Subgroup 21 collaboration during 2001 - 2004, was to prepare recommendations for best evaluations for the bulk of fission products. Altogether, reviewed were evaluations for 211 materials.

Considered were libraries ENDF/B-VI.8, JEFF-2.2, JENDL-3.3, BROND-2.2 and CENDL-3.0. Review methodology treated separately low energy and fast neutron energy regions. Graphical inter-comparison was prepared for evaluations from 5 libraries against experimental data from the CSISRS library. Taken into account was methodology used in various evaluations. The review focused on microscopic data, no attempt to use integral data was made.

Results show that majority of recommendations are for the two libraries that use fairly new evaluations. In both low and fast energy regions, JENDL-3.3 is mostly recommended. This is followed by CENDL-3 in the fast energy region.