

EVALUATED FAST NEUTRON CROSS SECTIONS
OF URANIUM-238*

by

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ABSTRACT

An evaluated fast neutron data file of ^{238}U is presented in the ENDF/B format. The incident energy range extends from 0.045 to 20.0 MeV. The content consists of: (1) neutron total cross sections, (2) fission cross sections, neutron emission spectra and associated properties, (4) neutron radiative-capture cross sections, (5) (n;2n') and (n;3n') processes, and (6) photon-production cross sections and spectra. The methodology of the file derivation is outlined. File content is graphically illustrated and uncertainty estimates are given. Comparisons with comparable portions of ENDF/B-IV are made and some large differences are noted. Some results of integral "benchmark" tests using this file are outlined. Many of the components of this file are those explicitly submitted for ENDF/B, Version V.

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