

ANL/NDM-134

AN EVALUATED NEUTRONIC DATA FILE FOR ELEMENTAL ZIRCONIUM

by

A. B. Smith^{a,b}, S. Chiba^c and J. W. Meadows^a

^a Argonne National Laboratory
Argonne, Illinois

^b The University of Arizona
Tucson, Arizona

^c Japan Atomic Energy Research Institute
Tokai Establishment

ABSTRACT

A comprehensive evaluated neutronic data file for elemental tin is derived and presented in the ENDF/B-VI formats. The derivation is based upon measured microscopic nuclear data, augmented by model calculations as necessary. The primary objective is a quality contemporary file suitable for fission-reactor development extending from conventional thermal to fast and innovative systems. This new file is a significant improvement over previously available evaluated zirconium files, in part, as a consequence of extensive new experimental measurements reported elsewhere.