

GRAPHICAL REPRESENTATION OF NEUTRON
DIFFERENTIAL CROSS SECTION DATA FOR
REACTOR DOSIMETRY APPLICATIONS*

by

Donald L. Smith

Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439
U.S.A.

ABSTRACT

The need for improved understanding of the relationships between available differential and integral data for neutron reactions used in reactor dosimetry has prompted investigation of a method for graphically representing experimental differential data in a form which appears to be quite useful for dosimetry applications. The method involves weighting the differential cross sections by spectral functions and plotting these values. Graphs of this form clearly indicate which differential data are important for spectrum unfolding applications. Simultaneous plots of experimental and evaluated differential cross sections--weighted by spectral functions--provide a means for comparing evaluations from the point of view of their impact on specific dosimetry applications.

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