

AN EVALUATION OF THE  
Nb-93(n,n')Nb-93m DOSIMETER REACTION  
FOR ENDF/B-VI

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ABSTRACT

A differential cross section evaluation for the Nb-93(n,n')Nb-93m dosimetry reaction from threshold to 20 MeV has been prepared for ENDF/B-VI. This evaluation was obtained by adjusting the results of nuclear model calculations using published differential cross section information. Uncertainties for the measured differential cross sections were derived from information provided in the literature. The uncertainties associated with the model-calculated curve were estimated indirectly through consideration of the total cross section and all other prominent reaction channels. Experimental and model-calculated information was then merged by means of the least-squares method to provide a final evaluation and its covariance matrix.