

NEUTRON TOTAL AND SCATTERING
CROSS SECTIONS OF ELEMENTAL ANTIMONY*

by

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ABSTRACT

Neutron total cross sections are measured from 0.8 to 4.5 MeV with broad resolutions. Differential-neutron-elastic-scattering cross sections are measured from 1.5 to 4.0 MeV at intervals of 50 to 200 keV and at scattering angles distributed between 20 and 160 degrees. Lumped-level neutron-inelastic-scattering cross sections are measured over the same angular and energy range. The experimental results are discussed in terms of an optical-statistical model and are compared with respective values given in ENDF/B-V.

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