FAST NEUTRON RADIATIVE CAPTURE CROSS SECTION OF ^{232}Th*

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ABSTRACT

The ^{232}Th(n,γ) cross section was measured between 30 keV and 2.5 MeV. A large liquid scintillator was used to measure the shape of the cross section relative to Au(n,γ) between 58 keV and 850 keV. The activation technique was used in measurements at 30 keV relative to Au(n,γ) and above 240 keV relative to ^{235}U(n,f). The activation results were utilized to normalize the shape data. The results agree well with recent experimental data by Lindner et al. and are substantially lower than the evaluated data file ENDF/B-IV in the several-hundred-keV range.

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