

Poschl Teller model for the total cross-section of neutron scattering from Th-232

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Abstract: Neutron scattering cross-section of Th-232 have been investigated using an attractive potential. On applying the modified Poschl-Teller model, the total cross-section of the n+Th-232 in the energy range 5-20 MeV has been calculated. It was compared with the available experimental data and evaluated data of JENDL-4.0, ENDF/B-VII.0 and CENDL-3.1 as well as with the theoretical value from TALYS-1.2 Nuclear Reaction Program, EMPIRE: 2.19 Nuclear Reaction Model Code and are found to be in reasonably good agreement. This supports the validity of the present calculation.

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