

SLOW NEUTRON INTERACTION WITH ^{74}Ge ISOTOPE

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The experimental results of total neutron cross section measurements for ^{74}Ge isotope in the energy range 5 – 1500 eV using the time-of-flight method at Kyiv Research Nuclear Reactor are presented. The experimental data on total neutron cross section for ^{74}Ge isotope in this energy range are absent in scientific publications. Nontraditional method for estimation of the bound level resonance parameters and potential scattering radius R' using the thermal neutron capture cross section data was proposed. Estimation of the bound level resonance parameters and potential scattering radius R' is performed; the obtained results were compared with the known published data.