

CROSS SECTION OF γ -RAYS IRRADIATION IN REACTIONS OF NEUTRON ABSORPTION BY IRON

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Differential cross sections of the reactions ${}^{\text{nat}}\text{Fe}(n, x\gamma)$ with neutron energy 14.1 MeV are unfolded from instrumental spectra using regularization procedure by Tikhonov and algorithm on the compact set of limited variations. Cross sections uncertainties are estimated. Theoretical calculations are performed using Hauser - Feshbach statistical model. Sensitivity of calculated cross sections to characteristics of excited nuclei is analysed.