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Average cross sections of photonuclear reactions on ^{89}Y

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In this work, an experimental study of ^{89}Y the photodisintegration is performed. Absolute yields and average cross sections weighted by the bremsstrahlung were measured for photoneutron reactions on ^{89}Y at the upper limit of 55 MeV brake photons. The measured yields and average cross sections weighted by the bremsstrahlung are compared with the yields of reactions calculated from theoretical cross sections of photoneutron reactions based on the TALYS and with the results of experiments performed on beams of quasi-monochromatic [1,2,4] and brake photons [5-8] and the estimated cross sections. The average cross section calculated in this work, weighted by the bremsstrahlung for the photoneutron reaction (γ, 1n) is consistent with the results of the calculation according to the TALYS and the cross sections from [1, 4].

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