

Study of the reaction based on the scattering of deuterons by a ^9Be nucleus at an energy of 23 MeV

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The experiment $^9\text{Be}(d,d')^9\text{Be}$ at $E(d) = 23$ MeV was carried out at the HI-13 tandem accelerator, China Institute of Atomic Energy (CIAE), Beijing. Two different method of detection were used: Q3D spectrometer at forward angles and strip detectors (ΔE -E) at medium and large angles. Differential cross sections were obtained for the following excited states: g.s, 2.43, 2.78, 3.05, 3.82, 4.7, 5.59, 6.38, 6.76 and 7.94 MeV. The theoretical analysis of the obtained experimental data was carried out using the DWBA and MDM methods. The conclusion was made about the formation of bands in the ^9Be .

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