EVIDENCE FOR DEFORMED STATES IN ^{75}Br *)

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The excited states in ^{75}Br have been studied via the reactions ^{74}Se(p,γ), ^{74}Se(d,n), ^{74}Se(^{3}He,pn) and ^{74}Se(α,p2n) by using in-beam γ-ray spectroscopy. In addition to measurements of γ-γ coincidences, excitation functions and angular distributions of γ-rays also ns lifetime measurements have been carried out. As a result 19 levels have been identified up to spin (17/2) and excitation energies up to 2.6 MeV. The B(E2) value of 88 W.u. derived for the 88.4 keV γ-ray indicates strong collectivity within a positive-parity band. A comparison of the excitation energies of the unique-parity states in ^{75}Br and ^{77}Br with those in ^{153}Tb and ^{155}Tb reveals that the average deformation increases when going from ^{77}Br (N = 42) to ^{75}Br (N = 40).

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