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# Experimental results on the Pygmy Dipole Resonance

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The so-called Pygmy Dipole Resonance (PDR) has been established as an additional structure of low-lying electric dipole (E1) strength in atomic nuclei [1]. The presence of the PDR in many medium-heavy to heavy nuclei and the smooth variation of its properties lead to the assumption that the PDR is a newly discovered collective mode. However, the detailed structure and the degree of collectivity of the PDR are a matter of ongoing discussions.

We have investigated the PDR experimentally using the methods of real-photon scattering as well as $(\alpha, \alpha'\gamma)$ coincidence experiments at E=136 MeV. While the photon scattering experiments provide information on the systematics of the PDR as well as its fine structure and the fragmentation of the E1 strength [2], the alpha scattering experiments allow the investigation of the structure of the individual excited states [3,4]. The comparison of the two methods have revealed a surprising structural splitting of the E1 strength into two energetically separated parts. Together with the investigation of the isoscalar and isovector E1 strength in QPM and RQTBA calculations these experimental observations allow for an identification and interpretation of the underlying structures of the low-lying E1 strength in atomic nuclei [4]. An overview on results in the N=82 and Z=50 mass region will be presented.

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