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Complete electric dipole response in ^{120}Sn : a test of the resonance character of the pygmy dipole resonance — ●A.M. HEILMANN and EPPSO COLLABORATION — Institut für Kernphysik, TU Darmstadt

In high-resolution (p,p') experiments under 0° the complete B(E1) strength distribution can be studied in stable nuclei. At RCNP Osaka, Japan, angular distributions including 0° and polarization transfer observables for E1 excitations in ^{120}Sn were measured in an excitation energy range of 5–25 MeV. The systematics of the pygmy dipole resonance in stable Sn isotopes has been recently studied at the S-DALINAC[1]. From this study it was concluded that knowledge of the complete E1 response would be important to differentiate between relativistic and nonrelativistic QRPA models predicting largely different properties of the pygmy dipole resonance. Data analysis and first results on the E1 strength will be presented.

[1] B.Özel, Ph.D. Theses, University of Cukurova (2008).

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