Isotopic Dependence of Giant Monopole Resonance (GMR) in the $^{106-116}$Cd isotopes and the asymmetry term in nuclear incompressibility[1] D. PATEL, U. of Notre Dame, U. GARG, Notre Dame(ND), M. FUJIWARA, RCNP, Osaka U, H. AKIMUNE, Konan U, G.P.A. BERG, ND, M.N. HARAKEH, KVI, U. of Groningen, M. ITOH, CRC, Tohuku U, M. ICHIKAWA, CRC, Tohuku U,, T. KAWABATA, U. of Tokyo, K. KAWASE, RCNP, Osaka U, R. MATSAU, CRC, Tohuku U, B.K. NAYAK, ND, S. OKUMURA, RCNP, Osaka U, T. TERAZONO, CRC, Tohuku U, M. UCHIDA, TIT, Tokyo, H.P. YOSHIDA, CRC, Tohuku U, M. YOSOI, RCNP, Osaka U — The asymmetry term associated with the neutron excess, K_τ, plays a very important role in the Equation of State (EOS) for neutron matter. The GMR studied over a series of isotopes provides a direct way to measure this term. We have measured GMR strength distributions in even A, $^{106-116}$Cd isotopes in an experiment performed at RCNP, Osaka University, Japan. Measurements were taken at forward angles, including $0\,^\circ$, using a 400 MeV α beam. The results affirm the conclusions of a recent experiment with the Sn isotopes. The constraints put by values of K_τ and K_∞, obtained from this experiment on the effective interaction currently in use in nuclear structure and EOS calculations, will be discussed.

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