

Abstract Submitted  
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**Giant resonances in  $^{112\sim 124}\text{Sn}$  isotopes and the symmetry term in nuclear** T. LI, U. GARG, P. V. MADHUSUDHANA RAO, R. MARKS, Department of Physics, University of Notre Dame, M. FUJIWARA, S. OKUMURA, M. YOSOI, Y. NAKANISHI, H. HASHIMOTO, K. KAWASE, S. TERASHIMA, Research Center for Nuclear Physics, Osaka University, M. UCHIDA, Department of Physics, Tokyo Institute of Technology, T. KAWABATA, CNS, University of Tokyo, M. ITOH, T. TERAZONO, R. MATSUO, M. ICHIKAWA, Cyclotron and Radioisotope Center, Tohoku University, H. SAKAGUCHI, T. MURAKAMI, Y. YASUDA, Y. TERASHIMA, J. ZENIHIRO, Y. IWAO, Department of Physics, Kyoto University, H. AKIMUNE, Department of Physics, Konan University — Based on the same data on the giant monopole resonances, calculations within the non-relativistic and relativistic models predict for nuclear incompressibility  $K_\infty$  values which are significantly different from one another, *viz.*  $\approx 220\text{-}235$  and  $\approx 250\text{-}270$  MeV respectively. It appears that the solution of this puzzle requires a better determination of the symmetry energy at saturation point. We have investigated the isoscalar giant monopole resonance (ISGMR) and the isoscalar giant dipole resonance (ISGDR) in Sn isotopes, using inelastic  $\alpha$ -particle of 400 MeV at extremely forward angles, including  $0^\circ$ . The ISGMR and ISGDR strength distributions have been extracted from the background-free inelastic scattering spectra by using multipole-decomposition analysis. The implications of these results on the symmetry energy term will be discussed.

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