

Abstract Submitted
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Testing the Mutually Enhanced Magicity (MEM) effect in the Giant Monopole Resonance (GMR) in the $^{204-208}\text{Pb}$ isotopes¹ D. PATEL, Univ. of Notre Dame(UND), U. GARG, G.P.A. BERG, UND, T. ADACHI, KVI, H. AKIMUNE, Konan U., Y. FUJITA, M. FUJIWARA, Osaka U., M. HARAKEH, KVI, M. ITOH, Tohoku U., C. IWAMOTO, Konan U., A. LONG, J. MATTA, UND, T. MURAKAMI, Kyoto U., A. OKAMOTO, Konan U, K. SAULT, R. TALWAR, UND, M. UCHIDA, Tokyo Inst. of Tech., M. YOSOI, Osaka U. — Recent study of the giant monopole resonance (GMR) in the even A, $^{112-124}\text{Sn}$ [1] and $^{106-116}\text{Cd}$ isotopes showed discrepancy in the centroid energy of GMR peak when compared with the theoretical calculations. It has been suggested [2] that this discrepancy might result from the MEM effect [3]. A consequence of this hypothesis would be significantly high GMR energy in the doubly-magic ^{208}Pb nucleus when compared with the nearby Pb isotopes. We have investigated GMR in $^{204-208}\text{Pb}$ isotopes in an experiment performed at RCNP, Osaka University, Japan. Measurements were taken at forward angles, including 0° , using a 400 MeV α beam. Preliminary results indicate that this hypothesis does not hold.

¹Ref: [1] T. Li et al., Phys. Rev. Lett. 99, 162503 (2007) [2] E. Khan, Phys. Rev. C 80, 011307, 057302 (2009) [3] N. Zeldes et al., Nucl. Phys. A399, 11 (1983)

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