Abstract Submitted
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Difference of mirror charge radii ^{36}Ca-^{36}S and ^{38}Ca-^{38}Ar, and implications on the neutron equation of state[1] K. MINAMISONO, B. A. BROWN, H. HERGERT, A. J. MILLER, R. C. POWEL, J. WATKINS, NSCL/Dep. Phys. Astron., MSU, J. PEIKAREWICZ, Dep. Phys., Florida State Univ., D. GARAND, K. KOENIG, C. SUMITHRARACHCHI, R. WIRTH, NSCL, MSU, A. KLOSE, Dep. Chem., Augustana Univ., J. D. LANTIS, S. V. PINEDA, NSCL/Dep. Chem., MSU, Y. LIU, Phys. Div., ORNL, B. MAASS, W. NOERTERSHAEUSER, D. M. ROSSI, F. SOMMER, Ins. Kernphyik, TUD, A. TEIGELHOEFER, TRIUMF — The charge radii of mirror nuclei ^{36}Ca-^{36}S and ^{38}Ca-^{38}Ar were used to deduce he first derivative L of the symmetry energy in the nuclear equation of state (EOS) [1]. Here the linear correlation between the difference of mirror charger radii and L were used [2] to set constraint on L. Implications on L will be discussed in terms of correlation with the mean field calculations with Skyrme interactions, the covariant density functional theory (CODF) and the Multi-Reference In-Medium Similarity Renormalization Group (IMSRG) approach. [1] B. A. Brown et al., Phys. Rev. Res. 2, 022035 (R) (2020). [2] B. A. Brown, Phys. Rev. Lett. 119, 122502 (2017).

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