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Isoscaling studies of reconstructed quasi-projectiles in ^{24}Mg, ^{40}Ca+^{112,124}Sn reactions at 32 MeV/u STRATOS GALANOPOULOS, Cyclotron Institute, Texas A&M University, College Station, Texas 77843, G.A. SOULIOTIS, A.L. KEKSIS, M. VESELSKY, M. JANDEL, D.V. SHETTY, Z. KOHLEY, S. SOISSON, B. STEIN, S. WUENSCHEL, S.J. YENNELLO — The isotopic distribution of the reaction products are sensitive observables in the study of the charge asymmetry term in the nuclear Equation of State, (nEOS) [1]. Studies on heavy-ion reactions near Fermi-energy region showed that the yield ratio of a given fragment coming from a neutron-rich vs a neutron deficient fragmenting system follows an exponential dependence with respect to the neutron and proton number of the fragments, an effect termed isoscaling (e.g. [2]). In this work, we study the isoscaling on ^{24}Mg,^{40}Ca +^{124,112}Sn reacting systems from reconstructed quasi-projectile events (QP's), for the determination of the isoscaling parameter α. The measurements were performed at the K500 Cyclotron accelerator of Texas A&M University using ^{24}Mg and ^{40}Ca beams at 32 MeV/u. The projectile fragments were detected by the Forward Array Using Silicon Technology (FAUST) [3]. Properties of the reconstructed QP's were also systematically investigated (e.g. velocity and E^*/A_{qp} distributions). **References** [1] M. Colonna *et al.*, Eur. Phys. J. A **30**, 165, (2006). [2] G. A. Souliotis *et al.*, Phys. Rev. C **73,** 024606 (2006). [3] F. Gimeno-Nogues *et al.*, Nucl. Instr. Meth. A **399**, 94 (1997).

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