

Abstract Submitted
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Production of neutron-rich beam using multinucleon transfer reactions for KOBRA KYOUNGHO TSHOO, Rare Isotope Science Project, Institute for Basic Science, GEORGE SOULIOTIS, Department of Chemistry, National and Kapodistrian University of Athens, YOUNGKWAN KWON, JUNYOUNG MOON, JUNESIC PARK, YONG-KYUN KIM, TETSURO KOMATSUBARA, TAKASHI HASHIMOTO, KWANGBOK LEE, Rare Isotope Science Project, Institute for Basic Science, KOBRA COLLABORATION — Recoil spectrometer, named as KOBRA (Korea Broad Acceptance Recoil spectrometer and Apparatus), is being developed for RISP (Rare Isotope Science Project) in Korea. The spectrometer will be utilized not only to produce rare isotope (RI) beams but also to study nuclear physics, using stable beams from superconducting Linac or RI beams from ISOL facility. The neutron-rich RI beams will be produced by employing the multinucleon transfer reactions at beam energy of 15–25 MeV/nucleon, from which high current of the RI beam can be obtained by larger production cross section than projectile-like fragmentation in intermediate energy. The calculated production cross sections are compared with the experimental data, and its reaction mechanism is briefly introduced.

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