Abstract Submitted for the APR10 Meeting of The American Physical Society

Dynamic Fragmentation of Ca Projectiles in Intermediate-Energy Heavy-Ion Collisions¹ MICHAEL QUINLAN, Department of Chemistry University of Rochester, IWONA PAWELCZAK, HARDEV SINGH, JAN TOKE, UDO SCHODER, Departments of Chemisitry and Physics University of Rochester, CHIMERA COLLABORATION — Charged products released in reactions of 48 Ca+ 112,124 Sn and 40 Ca+ 112 Sn at 45 AMeV were measured using the CHIMERA 4 π multi-detector array of the LNS-INFN in Catania, Italy. Emission patterns of these products were characterized with the aid of Wilczyński-type dissipation plots and invariant velocity plots. Additionally the angular distribution of the binary ($Z_1, Z_2 \geq 3$) breakup of the primary projectile-like fragment was found to exhibit a distinct forward-backward asymmetry, which appears to be inconsistent with a two-step reaction model: a dissipative reaction stage followed by statistical decay of primary products.

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Michael Quinlan Department of Chemistry University of Rochester

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