

Abstract Submitted  
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**Dissociative Ionization of CO<sub>2</sub> by 1MeV/u C<sup>5+</sup> projectiles** A.L. LANDERS, J.C. THOMPSON, E.J. CLOTHIAUX, Auburn University, J.B. WILLIAMS, J.M. SANDERS, University of South Alabama — We have measured the dissociative ionization of carbon dioxide (CO<sub>2</sub>) by 1MeV/u C<sup>5+</sup> projectiles using a Cold Target Recoil Ion Momentum Spectroscopy (COLTRIMS). By far the dominant fragment ion pair produced in these collisions is the two body breakup [O<sup>+</sup>, CO<sup>+</sup>]. We have momentum analyzed this channel and find that although the dissociation is forward/backward symmetric, production of the ion-pair is clearly more likely for ions oriented perpendicular to the direction of incoming projectile. Additional exploration of the correlation between the kinetic energy release and molecule orientation is in progress.

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