Abstract Submitted for the DAMOP07 Meeting of The American Physical Society

Modified COLTRIMS Technique to Measure Electron Interactions with Atoms and Molecules J.B. WILLIAMS, J. STEWART, A. BHANDARY, E.J. CLOTHIAUX, A.L. LANDERS, Auburn University, Auburn, AL 36849 — We have built a modified COLTRIMS apparatus to measure electron collisions with atoms and molecules. A beam from a pulsed electron gun passes through a diffuse target, followed by a synchronized electric field pulse which extracts the ions to a multi-channel plate detector with delay-line anode. By measuring positions and times of the extracted ions, relative cross sections differential in ion momentum can be determined. For example, this information can lead to both molecule orientation and dissociation energy. Preliminary results will be presented.

> Allen Landers Auburn University

Date submitted: 02 Feb 2007

Electronic form version 1.4