

Abstract Submitted
for the GEC11 Meeting of
The American Physical Society

Experimental and theoretical triple differential cross sections for electron impact ionization of aligned H₂¹ ESAM ALI, Missouri S and T, AL-LISON HARRIS, Henderson State University, JULIAN LOWER, Institut for Kernphysik, ERICH WEIGOLD, Australia National University, CHUANGANG NING, Tsinghua University, DON MADISON, Missouri S and T — Most experiments measuring electron-impact ionization of molecules do not determine the orientation of the molecule at the time of ionization. One way to determine the orientation is to simultaneously ionize the molecule and excite the residual ion to a state that will dissociate. The orientation of the molecule can then be determined by detecting one of the dissociation fragments since the fragments will leave in the direction of orientation. Experimental and theoretical TDCS (triple differential cross sections) results will be presented for excitation-ionization of the $2s\sigma_g$, $2p\sigma_u$, and $2p\pi_u$ states of H₂ for three different orientations of the molecule.

¹Work supported by NSF and the NSF TeraGrid computer system.

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Date submitted: 18 Jul 2011

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