

Abstract Submitted
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Importance of Molecular alignment in (e,2e) collisions¹ ESAM ALI, DON MADISON, Missouri University of Science and Technology, ALLISON HARRIS, Henderson State University, JULIAN LOWER, Max-Planck-Institut für Kernphysik, ERICH WEIGOLD, Australian National University, CHUANGANG NING, Tsinghua University — 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 three excited states of H₂ for three different orientations of the molecule at incident electron energy of 176 eV.

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Esam Ali
Missouri University of Science and Technology

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