

Abstract Submitted
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Experimental and theoretical study of the energy and angular dependence of the triple differential cross sections for electron-impact ionization of aligned H₂.¹ ESAM ALI, Missouri Univ of Sci Tech, ENLIANG WANG, Max-Planck-Institute for Kernphysik, Heidelberg, Germany, XINGYU LI, University of Science and Technology of China, Hefei 230026, China, XUEGUANG REN, Max-Planck-Institute for Kernphysik, Heidelberg, Germany, CHUANGANG NING, Department of Physics and State Key Laboratory of Low-Dimensional Quantum Physics, Tsinghua, XIANGJUN CHEN, University of Science and Technology of China, Hefei 230026, China, ALEXANDER DORN, Max-Planck-Institute for Kernphysik, Heidelberg, Germany, DON MADISON, Missouri Univ of Sci Tech — We have measured triple differential cross sections for 520 eV electron impact ionization of aligned H₂ in the perpendicular plane. For ejected electron energies of 10 eV and 20 eV, we measured cross sections for all possible alignment angles. For two perpendicular alignment angles, we measured cross sections for ejected electron energies ranging between 10 eV and 30 eV. The experimental results will be compared with theoretical M3DW (molecular 3-body distorted wave) and MCDW (multicenter distorted-wave) models calculations. Overall, good agreement is found between theory and experiment.

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