

Abstract Submitted
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The Nuclear Configuration Effects on Electron Impact Ionization Cross Sections of He and H₂ Measured in the Perpendicular Plane¹

OLA AL-HAGAN, DON MADISON, Missouri University of Science and Technology, CHRISTIAN KAISER, ANDREW MURRAY, University of Manchester — The effect of nuclear configuration on the differential cross sections for ionization of atomic He and molecular H₂ will be reported. In these investigations, ionization into the perpendicular plane is investigated since this geometry is highly sensitive to nuclear scattering. Consequently, the perpendicular plane provides an ideal test-case to investigate the influence of different nuclear configurations on the ionization process. Experimental cross sections for He and H₂ (same number of protons differently configured) show remarkable similarities and differences which can be explained in terms of elastic scattering for the respective nuclei.

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