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Low-Energy Electron Impact Ionization of Molecular Hydrogen

J.G. CHILDERS, KELLY KUPER, MURTADHA A. KHAKOO, California State University, Fullerton, CA 92834, USA — Relative doubly-differential cross sections for the electron impact ionization of molecular hydrogen have been measured at incident energies of 25 eV and 40 eV and scattering angles of 20° to 130°. The calibration of the electron analyzer during these measurements employed the recent doubly-differential cross section measurements of atomic hydrogen.¹ These measurements represent a new calibration standard useful in the determination of the transmission function of electron analyzers. This work is funded by the National Science Foundation under grant # NSF-RUI-PHY-9731890.

¹J.G.Children, K. E. James, Jr., Igor Bray, M. Baertschy, and M.A.Khakoo, *Phys. Rev. A* **69**, 022709 (2004).

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