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Electron Impact Ionization of Helium ERIC SCHOW, KEN HA-ZLETT, CRISTINA MEDINA, GIL VITUG, J. G. CHILDERS, MURTADHA A. KHAKOO, California State University, Fullerton, CA 92834, USA, I. BRAY, D. V. FURSA, Murdoch University, Perth 6150, Australia, J. COLGAN, Theoretical Division, Los Alamos National Laboratory, Los Alamos, NM 87545 — Recently completed measurements of the absolute singly- and doubly-differential cross sections for the electron impact ionization of helium at low incident energies will be presented. The measurements were taken using the moveable nozzle technique.¹ Data were taken at incident energies of 26 eV, 28 eV, 30 eV, 32 eV, 34 eV, 36 eV, and 40 eV. The results are compared to the theoretical convergent close-coupling and time-dependent close coupling calculations. Generally good agreement is observed, but areas of small but significant disagreement are noted. This work is funded in part by the National Science Foundation under grant # NSF-RUI-PHY-0096808.

¹M. Hughes, K. E. James, Jr., J. G.Childers, and M. A. Khakoo, *Meas. Sci. Technol.* **14**, 841 (2003)

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