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Electron-atom scattering using time-dependent density-functional theory META VAN FAASSEN, Dept Chemistry & Chem Biology, Rutgers University, 610 Taylor Road, Piscataway, NJ 08854, KIERON BURKE, University of California, 1113 Natural Sciences II, Irvine, CA 92697 — We present a method to obtain single-channel elastic electron-atom scattering phase shifts from time-dependent density functional theory (TDDFT). The system is placed in a spherical box, and TDDFT is used to calculate its discrete spectrum, from which phase shifts are deduced. The influence of ground state Kohn-Sham potentials and exchange-correlation kernels on the results are discussed.

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