Calculation of electron scattering on silver[1] DMITRY FURSA, KEE-
GAN MCNAMARA, IGOR BRAY, Curtin University — The relativistic conver-
gent close-coupling (RCCC) method has been applied to study electron scattering
from silver and obtain differential and integrated cross sections for elastic scattering
and excitation to the $4d^{10}5p$, $4d^{10}6s$, $4d^{10}6p$, $4d^{10}5d$, $4d^{10}7s$, and combined $4d^{10}7p$,
$4d^{10}6d$, and $4d^{10}4f$ states for incident electron energies up to 500 eV. In addition to
the cross sections we have obtained Stokes parameters for the $(4d^{10}5p)^2P_{3/2}$ state
and elastic spin asymmetries. The silver atom is described by a model of a single
electron above a frozen [Kr]$4d^{10}$ core. Empirical one- and two-electron polarization
potentials have been used to obtain the best representation of the target state en-
ergies and the optical oscillator strengths. To test convergence we have conducted
calculations using a number of models and present results for two target states
models, one consisting of 22 bound states and 28 continuum states, and the other
extending the number of continuum states to 58. Good agreement was found with
available experimental data for elastic scattering and $4d^{10}5p$ excitation differential
cross sections.

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