

Abstract Submitted  
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**Electron-Impact Ionization from Excited States in H-Like Ions**

D.C. GRIFFIN, C.P. BALLANCE, Department of Physics, Rollins College, Winter Park FL 32789, M.S. PINDZOLA, F. ROBICHEAUX, S.D. LOCH, J.A. LUDLOW, Department of Physics, Auburn University, Auburn, AL 36849, M.C. WITTHOEFT, Department of Physics, University of Strathclyde, Glasgow G4 0NG, UK, J. COLGAN, C.J. FONTES, Los Alamos National Laboratory, Los Alamos, NM 87545, D.R. SCHULTZ, Physics Division, Oak Ridge National Laboratory, Oak Ridge, TN 37831 — To test the validity of classical trajectory and perturbative quantal methods for electron-impact ionization of H-like ions from excited states, we have performed advanced close-coupling calculations of ionization from such states in H,  $\text{Li}^{2+}$ , and  $\text{B}^{4+}$  using the R-matrix with pseudo states (RMPS) and the time-dependent close-coupling (TDCC) methods. We will show comparisons of the results of our RMPS and TDCC calculations with those from our classical trajectory Monte-Carlo (CTMC) and distorted-wave (DW) calculations; these comparisons demonstrate that the CTMC method is more accurate than the DW method for H, but does not improve with  $n$  and grows substantially worse with  $Z$ , while the DW method improves with  $Z$  and grows worse with  $n$ .

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