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Benchmark calculations for electron collisions with neutral indium atoms.[1] K. R. HAMILTON, O. ZATSARINNY, K. BARTSCHAT, Drake University, D. V. FURSA, I. BRAY, Curtin University — Cross sections for electron collisions with indium atoms are important for modelling plasmas with indium as a constituent. However, only a few experimental data and previous calculations are currently available, without a thorough uncertainty assessment. As part of a multi-author, multi-institutional collaboration [1] with the goal of recommending a set of cross sections for elastic scattering, momentum transfer, excitation, and ionization for e-In collisions, we carried out extensive relativistic Dirac B-spline R-matrix and convergent close-coupling calculations. Very good agreement between the predictions is obtained, as long as inner-shell excitation or excitation-ionization processes involving the 5s-subshell can be neglected. [1] K. R. Hamilton, O. Zatsarinny, K. Bartschat, M. S. Rabasović, D. Šević, B. P. Marinković, S. Dujko, J. Atic, D. V. Fursa, I. Bray, R. P. McEachran, F. Blanco, G. García, P. W. Stokes, R. D. White, and M. J. Brunger; in preparation for Phys. Rev. A., J. Phys. Chem. Ref. Data, Plasma Sources Sci. Technol.

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