

Abstract Submitted
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Electron Impact Ionization of Heavier Ions including relativistic effects B.C. SAHA, Department of Physics, Florida A&M University, A.K.F. HAQUE, M.A. UDDIN, A.K. BASAK, Department of Physics, University of Rajshahi, Rajshahi, Bangladesh — The demands of the electron impact ionization cross sections in diverse fields are enormous. And this is hard to fulfill either by experimental or *ab initio* calculations. So various analytical and semi-classical models are applied for a rapid generation of ionization cross sections accurately. We have applied a modified version [1] of the Bell et. al. equations [2] including both the ionic and relativistic corrections. In this report we show how to generalize the MBELL parameters for treating the orbital quantum numbers nl dependency; the accuracy of the procedure is tested by evaluating cross sections for various species and energies. Detail results will be presented at the meeting.

[1] A. K. F. Haque, M. A. Uddin, A. K. Basak, K. R. Karim and B. C. Saha, Phys. Rev. A73, 052703 (2006).

[2] K. L. Bell, H. B. Gilbody, J. G. Hughes, A. E. Kingston, and F. J. Smith, J. Phys. Chem. Ref. Data 12, 891 (1983).

Bidhan C. Saha
Department of Physics, Florida A & M University

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