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Inner-shell ionization of atomic targets by Electron Impact[1]
A.K.F. HAQUE, M.R. TALUKDER, M. SHAHJAHAN, M.A. UDDIN, A. K. BASAK, Department of Physics, University of Rajshahi, Rajshahi-6205, Bangladesh, B.C. SAHA, Department of Physics, Florida A&M University, Tallahassee, FL-32307 — The knowledge of inner-shell ionization cross sections has not only fundamental importance for understanding collision dynamics of electron-atom interactions, *etc*, but also is used extensively in many applied fields such as radiation science, astrophysics, plasma physics, *etc*. The enormous demands of ionization cross sections can only be met by suitable analytical formula that are easy to use and can produce reliable result. We report here an extension of the CVTS [1] model incorporating both the relativistic and ionic factors and tested on 23 atomic targets ranging from He to U [2] with excellent account of the experimental cross sections.

[1] C. S. Campos, M. A. Z. Vasconcellos, J. C. Trincavelli, and S. Segui, J. Phys. B. 40, 3835 (2007).
[2] A K F Haque, M R Talukder, M. Shahjahan, M A Uddin, A K Basak and B C Saha, J. Phys. B.; *At. Mol. Opt. Phys* (under consideration), (2010).

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