

Abstract Submitted
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Electron Impact Ionization of the K-shell Atoms: a comparative study¹ BIDHAN SAHA, Department of Physics, Florida A&M University, Tallahassee, FL-32307 — The electron impact ionization (EII) is of fundamental importance in understanding the physics of the collision process involving a many-electron systems involving neutral and ionic targets. EII cross sections (EIICS) are needed in many fields such as astrophysics, atomic, biological, chemical, molecular and plasma physics etc. for various targets over a wide range of projectile energies. Using various models such as the MBELL, XCVTS, GKLV and MUIBED models [1], the predictions of these models are compared with the available EIICS data as well as other theoretical results. For the *K*-shell ionization, the calculated cross sections agree very nicely with the experimental findings. Details will be presented on the conference.

[1] A. K. F. Haque, M. A. Uddin, M. Shahjahan, M. R. Talukder, A. K. Basak, B. C. Saha, in *Advances in Quantum Chemistry*, Vol 61, 2011 (in press).

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Bidhan Saha
Department of Physics, Florida A&M University, Tallahassee, FL-32307

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