Electron Impact K-Shell Ionization of Atoms $(2 \leq Z \leq 92)$[1]
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— The electron impact ionization phenomena have fundamental importance ranging from plasma to astro-physics. Reliable K-shell ionization cross sections (KSICS) are needed for various quantitative analyses. Even the first order quantal calculations are rather both lengthy and not too easy to implement for various modeling calculations. We propose a *parameter free* model based on the widely used binary encounter approximation (BEA) [1,2] by incorporating both the ionic and relativistic corrections and have tested to evaluate KSICS with considerable success as compared to experimental results even up to E=1 GeV.
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