

Abstract Submitted  
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**Compton Profiles of Atoms and Ions** KHONDKAR KARIM, Illinois State University — We present momentum-space properties of several atoms and ions including He, Be, B, C, N, O, and Ne atoms, and the respective ions in many possible ionization stages. The calculations have been done using Hartree-Fock atomic model. The Compton profile data presented here could be used to obtain doubly differential cross section of electron production in ion-atom collision from electron-ion cross sections. The plots of electron distribution in momentum space reveal interesting features that are not apparent in electron's radial probability distribution in coordinate space.

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