

Abstract for an Invited Paper
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Recent Theoretical Progress for Treating Charged Particle Ionization of Atoms and Molecules¹

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The field of atomic and molecular ionization by charged particle impact has seen exciting advances over the last few years as a result of the development of the COLTRIMS method. Using COLTRIMS, one can get three-dimensional fully differential cross sections (FDCS) for essentially any projectile and any target. This work complements the results of more conventional spectrometers which means that we are getting a much clearer picture of the ionization process. As a result of the rapid experimental advances, the theoretical models are being more stringently tested. This talk will examine the theoretical advances that have been made in the last few years for light and heavy particle ionization of atoms and molecules.

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