Abstract Submitted
for the GEC10 Meeting of
The American Physical Society

Multiple-Scattering Effects in Single Ionization Processes R.O. BARRACHINA, E. ALTSZYLER, Centro Atomico Bariloche and Instituto Balseiro, Argentina — We investigate the multiple-scattering effects that occur in the single ionization of an aggregate of atoms. The interference of waves that have been scattered one or more times by the atoms can produce distortions of the momentum distribution that are not taken into account by standard zero-order scattering approximations. We calculate these effects to all orders for the case of a diatomic molecule, and show that they cannot be neglected in any accurate evaluation of the momentum distribution of the emitted electrons.

R. O. Barrachina
Centro Atomico Bariloche and Instituto Balseiro, Argentina

Date submitted: 10 Jun 2010 Electronic form version 1.4