

Abstract Submitted
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Imaging of Attosecond Ring Current Dynamics¹ JOEL VENZKE, JILA and Department of Physics, University of Colorado, Boulder, CORY GOLD-SMITH, JILA and Department of Chemistry, University of Colorado, Boulder, AGNIESZKA JARON-BECKER, ANDREAS BECKER, JILA and Department of Physics, University of Colorado, Boulder — When a helium atom is excited into a superposition of a $1s$ and a $np+$ state, the electron wave packet produces a ring current with attosecond scale charge density dynamics. We have studied the preparation and time dependent imaging of such a system utilizing attosecond laser pulses. The presented results are obtained from *ab initio* simulations of the time dependent Schrödinger equation in the single active electron and dipole approximations. Effects of pulse length, polarization and other parameters of the imaging pulse on the obtained data will be discussed.

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