

Abstract Submitted
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Multiphoton double ionization of the He atom¹ Y. LI, M. S. PINDZOLA, Department of Physics, Auburn University — Time-dependent close-coupling (TDCC) calculations are made for the multiphoton double ionization of the He atom under the influence of a fast pulse XUV laser. One set of TDCC calculations employs $l_1 m_1 l_2 m_2$ coupling on a 2D (r_1, r_2) numerical lattice, a second set of TDCC calculations employs $m_1 m_2$ coupling on a 4D $(r_1, \theta_1, r_2, \theta_2)$ numerical lattice, and a third set of TDCC calculations employs $m_1 m_2$ coupling on a 4D $(\rho_1, z_1, \rho_2, z_2)$ numerical lattice. Studies are made to see which TDCC method is the most efficient at explaining measurements as the number of photons absorbed is increased.

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