

Abstract Submitted
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Two-color attosecond control of helium¹ JESÚS V. HERNÁNDEZ, B.D. ESRY, Kansas State University — We present the results of *ab initio* 6-D calculations of atomic He in intense laser fields below the $N = 2$ threshold. In particular, we investigate the possibility of coherent control over the atom by using two-color photoexcitation schemes. By manipulating the relative phase between the excitation pulses via attosecond delays, the probability of excitation and single ionization can be enhanced or suppressed. We study recent experiments which use attosecond pulse trains synchronized to infrared fields to ionize He. By casting the attosecond pulse train and the infrared laser into a multi-color picture, we also develop an analytic framework to interpret the numerical results.

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Jesus V. Hernandez
Kansas State University

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