

Abstract Submitted
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Alignment dependence of high-order harmonic generation from CO₂¹ ANH-THU LE, Kansas State University, XIAO-MIN TONG, Institute of Materials Science, Graduate School of Pure and Applied Science, University of Tsukuba, C. D. LIN, Kansas State University — High-order harmonic generation (HHG) from aligned CO₂ is studied within framework of the strong-field approximation (SFA). The results are in qualitative agreements with recent pump-probe experiments. The experimentally observed inverted modulation in HHG signals as a function of pump-probe delay time has been attributed to the quantum interference from the two oxygen centers. Our results, however, indicate that this is not necessary for the inverted modulation alone. The angular dependence of the HHG and the evolution of the HHG yield as functions of delay time are influenced strongly by the depletion of the ground state and, therefore, are sensitive to the probe laser intensity.

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