

Abstract Submitted
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Two-center minima in harmonic spectra from aligned polar molecules ADAM ETCHES, Department of Physics and Astronomy, Aarhus University, Denmark; Department of Physics and Astronomy, Louisiana State University, METTE B. GAARDE, Department of Physics and Astronomy, Louisiana State University, LARS B. MADSEN, Department of Physics and Astronomy, Aarhus University, Denmark — We extend a model of two-center interference to include the superposition of opposite orientations in aligned polar molecules. We show that the position of the minimum in aligned CO depends strongly on the relative recombination strength at different atoms, not just the relative phase. Inclusion of the first-order Stark effect shifts the position of the interference minimum in our numerical calculations, even though aligned molecules do not possess total permanent dipoles. Reinterpreting the minimum as an interference between opposite orientations, we explain the shift in terms of an extra phase that the continuum electron of oriented CO picks up due to the Stark effect.

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