

Quantum Optimal Control of Rovibrational Excitations of a Diatomic Alkali Halide: One-Photon vs. Two-Photon Processes

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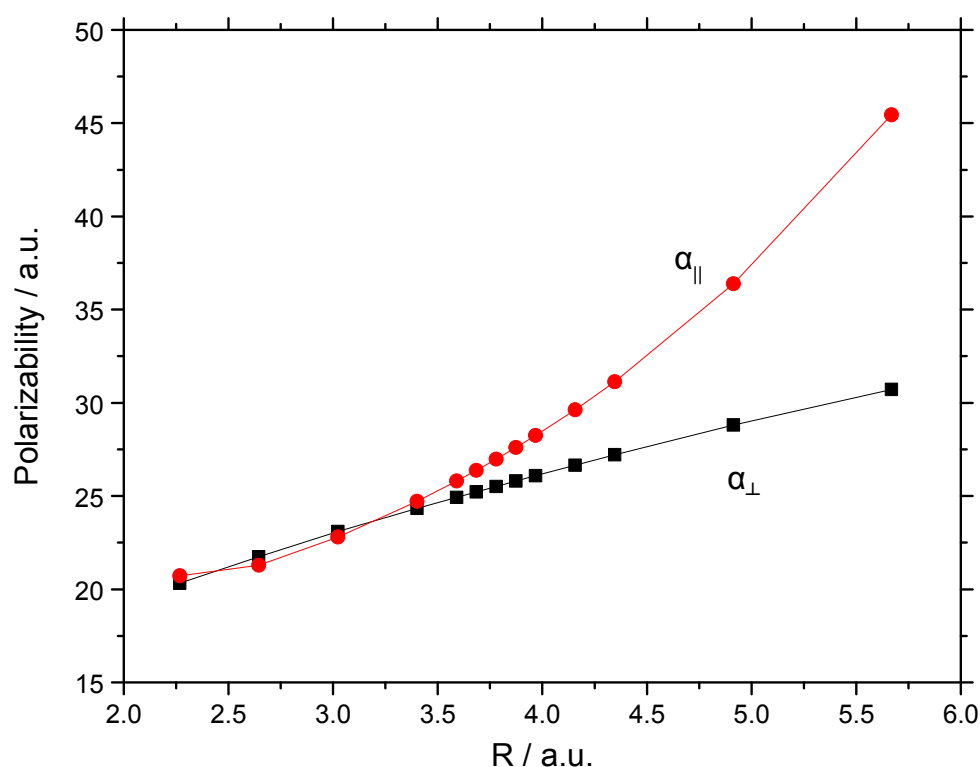


Figure 1. Components of polarizability of LiCl parallel ($\alpha_{||}$) and perpendicular (α_{\perp}) to the molecular axis, calculated at the RMP2/aug-cc-pVTZ level of theory.

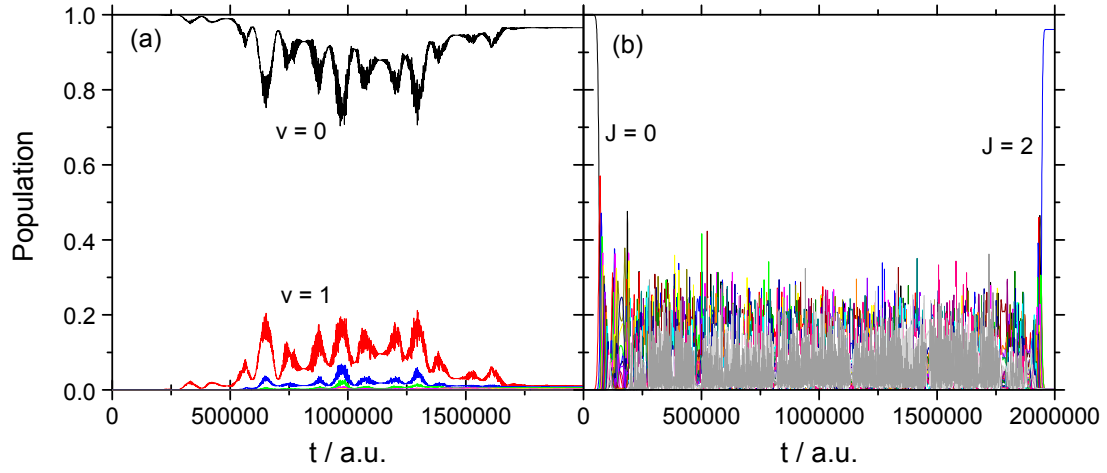


Figure 2. Temporal changes in state populations for the rotational excitation, $(v=0, J=0) \rightarrow (v=0, J=2)$, caused by the optimal field shown in Figure 5, in the strong-field regime: (a) vibrational states; (b) rotational states.

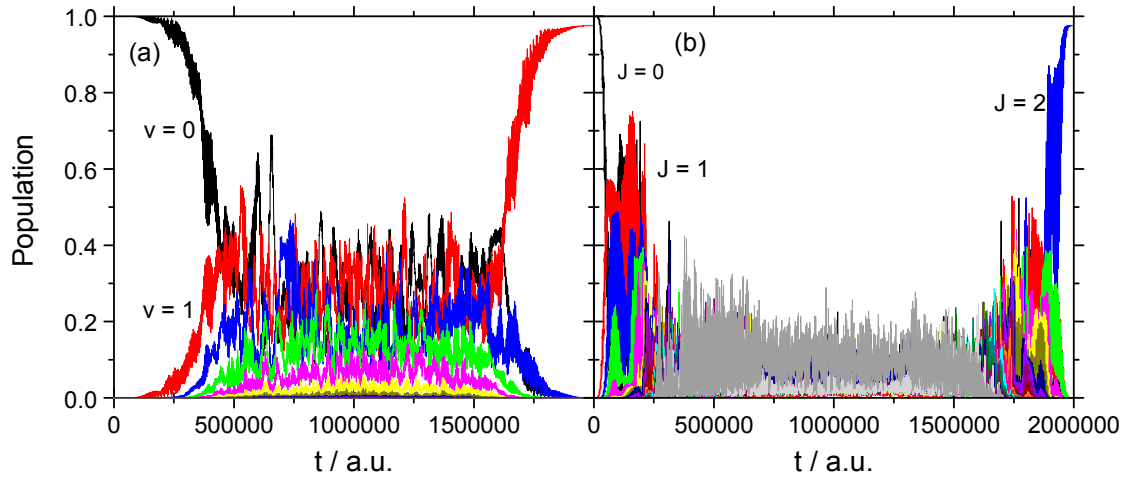


Figure S3. Temporal changes in state populations for the vibrational-rotational excitation, $(v=0, J=0) \rightarrow (v=1, J=2)$, caused by the optimal field shown in Figure 10, in the strong-field regime: (a) vibrational states; (b) rotational states.