Abstract Submitted
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Pulse chirping in mode selective excitation SVETLANA MALINOVSKAYA — The theory of coherent control of molecular vibrations using ultrafast chirped laser pulses in stimulated Raman spectroscopy is investigated. Nonadiabatic and adiabatic pulse interactions with molecules are considered, with the goal of achieving selective excitation of energetically close Raman transitions. A model of two-level systems interacting with transform-limited pump and chirped Stokes pulse is used. Methods for creating a desired coherent superposition of states is analyzed within a dressed state picture.

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