Control of nonlinear resonant photochemistry of 1,3-cyclohexadiene

Using a genetic algorithm and optical pulse shaper, we find ultrafast laser pulses that control the multi-photon ring-opening of cyclohexadiene (CHD).

UV spectroscopy shows that more photoproduct was created by the tailored laser pulse than by the most intense pulse.

The reaction is coherently driven by a laser pulse with negatively chirped phase (inset).


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