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Title

Field-free Molecular Orientation with a few Half-cycle Pulses in the Terahertz Region

Source

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Abstract

A theoretical scenario used for achieving efficient field-free molecular orientation with a few half-cycle pulses (HCPs) is proposed, with the LiH molecule as an example. Compared with a single HCP, three HCPs can excite more rovibrational transitions and enhance the degree of molecular orientation. By optimizing the laser parameters, a maximum value of 0.798 for the degree of molecular orientation is obtained. (32 References).