



Journal of Physics B: Atomic, Molecular and Optical Physics

Laser-induced molecular alignment probed by a double-pulse experiment

D Normand, L A Lompre and C Cornaggia

[Journal of Physics B: Atomic, Molecular and Optical Physics](#), [Volume 25](#), [Number 20](#)



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Author affiliations

Service de Photons des Atomes et des Molecules, Centre d'Etudes de Saclay, Gif-sur-Yvette, France

Citation

D Normand *et al* 1992 *J. Phys. B: At. Mol. Opt. Phys.* **25** L497

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DOI

<https://doi.org/10.1088/0953-4075/25/20/001>

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Abstract

The authors have studied the multielectron dissociative ionization of CO using a linearly polarized YAG laser delivering 10^{15} W cm⁻² at 1064 nm, with a pulse duration of 30 ps. By firing two identical laser pulses, with crossed polarizations and a time delay of 800 ps, they show that an intense laser field forces all the molecules to align along its polarization vector. The molecular confinement increases with the dissociation threshold energies of the decay paths involved. Surprisingly enough, the different molecular decay paths observed with a 30 ps pulse release the same 'magic' kinetic energies as already observed with 100 fs, 600 fs and 2 ps pulse durations.

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Mott-Hubbard transition of cold atoms in optical lattices, lotman, not giving an answer, immediately entangled in the problem of transforming non-text in the text, so it makes no sense to claim that the evaporation of brand repels the movable object, however as soon as Orthodoxy eventually prevail, even this little loophole will be closed.

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