Multimode vibrational spectroscopy in the fs time domain: Chances for molecular parallel computing and optical communication

Elva A. Torres and Karl L. Kompa

Max Planck Institute of Quantum Optics, Garching, Germany karl.kompa@mpq.mpg.de

Multidimensional spectroscopy is well known in X-ray-, NMR-, and molecular spectroscopy. This paper demonstrates the use of multistate vibrational laser spectroscopy in several modes of an organometallic molecule - both as a chemical dynamics problem and in the interest of molecular information and computing.