Autor(en) des Beitrags:
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Titel des Beitrags:
Using ultrafast infrared multidimensional correlation spectroscopy to aid in vibrational spectral peak assignments

Abstract:
Ultrafast IR heterodyne detected vibrational stimulated echoes with full phase information are used to obtain the vibrational correlation spectrum from a mixt. of metal-carbonyl compds. The linear absorption spectrum displays 4 peaks in the carbonyl stretching region. In the absence of knowledge of the mols. that make up the mixt., the absorption spectrum could arise from 4 mols. that each produces a single peak to 1 mol. with 4 peaks. But the correlation spectrum displays 4 peaks on the diagonal and off-diagonal peaks that make it straightforward to det. which peaks belong to a particular mol. [on SciFinder(R)]

Stichworte:
Transition metal complexes Role: PRP (Properties) (carbonyl complexes using ultrafast IR multidimensional correlation spectroscopy to aid in vibrational spectral peak assignments of) Transition metal complexes Role: PRP (Properties) (carbonyl using ultrafast IR multidimensional correlation spectroscopy to aid in vibrational spectral peak assignments of) Carbonyl complexes Role: PRP (Properties) (transition metal using ultrafast IR multidimensional correlation spectroscopy to aid in vibrational spectral peak assignments of) IR correlation multidimensional ultrafast vibrational echo metal carbonyl complex iridium acetylacetonatodicarbonyl IR correlation multidimensional ultrafast vibrational echo cobalt carbonyl cyclopentadienyl IR correlation
multidimensional ultrafast vibrational echo

Kongresstitel: CAN 140:83933 73-3 Optical, Electron, and Mass Spectroscopy and Other Related Properties Department of Chemistry, Stanford University, Stanford, CA, USA. Journal 0009-2614 12078-25-0 (Dicarbonyl(η5-cyclopentadienyl)cobalt); 14023-80-4 (Acetylacetonatodicarbonyliridium) Role: PRP (Properties) (using ultrafast IR multidimensional correlation spectroscopy to aid in vibrational spectral peak assignments of)

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