ROTATIONAL SPECTRUM OF THE CYCLOPENTADIENYL NICKEL ALLYL COMPLEX [a]

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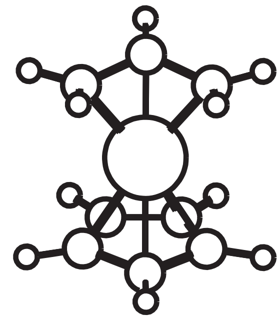

We have recently measured the rotational spectrum of the cyclopentadienyl nickel allyl complex using a pulsed-beam FT microwave spectrometer system. The a and c-type dipole transitions were observed in the frequency range of 4-11 GHz. Most of the measured transitions however were a-type transitions. The observed transitions exhibited a near prolate-top spectrum. Transitions due to the three Nickel isotopes were clearly observed. The spectral pattern observed in the experimental spectrum is similar to the simulated rigid spectrum. The observed transitions however do not fit a distortable 'rigid-rotor' spectrum. Work is in progress to analyze this 'fluxional' spectrum. We will present the latest results.

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