THE STRUCTURE OF CYCLOPENTADIENYL TUNGSTEN TRICARBONYL HYDRIDE COMPLEX [a]

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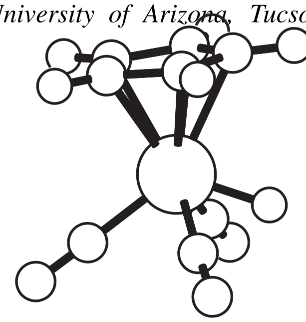

We report the structural parameters for the cyclopentadienyl tungsten tricarbonyl hydride complex. Tungsten and molybedum carbonyl mono-hydride complexes have recently been explored as possible agents for hydrogenation catalysts. We have now obtained spectra for five unique 13C and a D-isotopomers using a pulsed-beam FT spectrometer system. This is the first measurement of the structure for a tungsten mono-hydride complex. The present structural data obtained from the Kraitchman and structure fits analyses are in good agreement with results obtained from DFT calculations.

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