INFRARED SPECTROSCOPY OF $W(CO)_6$ IN CRYOGENIC SOLID PARAHYDROGEN

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We are currently engaged in studying the infrared spectroscopy of $W(CO)_6$ in cryogenic solid parahydrogen in the CO stretch region. This work builds off the beautiful infrared spectroscopic and photochemical studies of $W(CO)_6$ conducted in rare gas matrices. Infrared spectra in the CO stretch region were measured and analyzed in order to study how the vibrational modes of the $W(CO)_6$ are perturbed in the low temperature solid hydrogen environment. In this regard we will present the infrared spectral data and discuss our current understanding of this spectrum.