ANALYSIS OF THE HIGH RESOLUTION ELECTRONIC SPECTRUM OF 1, 2, 3, 6, 7, 8 - HEXAHYDROPYRENE

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The rotationally resolved electronic spectra of the two conformers of 1, 2, 3, 6, 7, 8 - hexahydropyrene (HHP) in the gas phase were obtained and fit using a rigid rotor Hamiltonian. Two electronic origins separated by 14 cm^{-1} are observed in the vibronically resolved spectrum, and have been assigned to the *boat* and *chair* conformers based on the analysis of their rotationally resolved spectra. The electronic transition moments of both conformers are compared to those of other substituted naphthalenes. Ground and excited state dynamics and agreement with theory are discussed.