VIBRATIONAL SPECTRA OF RESORCINOL.H_2O AND RESORCINOL.CO; IDENTIFICATION OF STRUCTURAL ISOMERS BY HOLE BURNING

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Dihydroxybenzenes are useful prototypes for the types of hydrogen bonding interactions found in biological molecules. The binding of small ligands (e.g. H_2O, CO) to resorcinol (1,3 dihydroxybenzene) has been investigated using REMPI and ZEKE spectroscopy. The technique of spectral hole burning aided by ab initio calculations was used to identify the different isomers and assign the vibrational spectra. Further experiments are underway using stimulated Raman pumping of the neutral ground states to increase our understanding of the non covalent interactions in these systems.