"Sprectroscopic study of complexies with acetic acids"

The spectra of the CX3COOH (X = H, Cl, F) with deutereted acetone-D6 or diethyl ether-D10 in the gas phase and in solutions were recorder with Bruker IFS-28 spectrometer. The equilibrium between the monomers of acid and acceptor, dimers of acid, and complex acid…B (B = acetone, diethyl ether) was observed. The spectra of acid…B were separate off using the spectra recorded at different concentrations. The special attention were paid to the v(OH) and v(C=O) bands of acids in the complex. The shifts of the v(OH) and v(C=O) bands frequency relative to acid monomer and dimer ones are determined. The spectral moments of the v(OH) and v(C=O) bands are compared with acid dimers ones. The results were explained.

1. **Jens Dreyer** *Hydrogen-bonded acetic acid dimmers: Anharmonic coupling and linear infrared spectra studied with density-functional theory*.- the journal of chemical physics 122, 2005
2. **Jens Dreyer** *Supporting information to**hydrogen-bonded acetic acid dimmers: Anharmonic coupling and linear infrared spectra studied with density-functional theory*.- the journal of chemical physics 122, 2005
3. **K.R.Lange, N.P.Wells,K.S.Plegge, J.A. Phillips** *Integrated intensities of O-H stretching bands: fundamentals and overtones in vapor-phase alcohols and acids*.- the journal of chemical physics A 105, 2001

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