JET-FTIR STUDIES OF MODEL PEPTIDE SYSTEMS

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Small model systems, such as Formamide and N-Methylacetamide, have the model N-H···O=C hydrogen bond interaction, which is found in peptides and proteins. The interactions can be probed using direct absorption FTIR spectroscopy.^a This is a useful tool to study peptide model systems, which do not contain a UV-chromophore. Upon complexation, the aggregates show distinctive bathochromic shifts in the N-H stretching region and in the C=O stretching frequency. New developments in the coupling of FTIR spectroscopy with supersonic jet expansions for less volatile model compounds will be presented.

^aRice, C. A.; Borho, N.; Suhm, M. A. Z. Phys. Chem. 219 (2005) 379–388.