# ISOMERS AND MICROSOLVATION IN $SiOH^+$-$Ar_n$ COMPLEXES (n=1-10)

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Infrared photodissociation spectra of mass selected $SiOH^+$-$Ar_n$ ionic complexes have been recorded in the vicinity of the OH stretch vibration in a tandem mass spectrometer. Two isomers are identified in the spectrum of the dimer (n=1) via rotational and vibrational analysis and comparison with ab initio calculations: a linear proton bound dimer and a T-shaped complex. Though the spectra of larger clusters (n=2-10) display only vibrational resolution, the analysis of the systematic complexation induced frequency shifts provides a detailed picture of the cluster growth, including the formation of solvation rings and the existence of various isomers[a].

[a]R. V. Olkhov, S. A. Nizkorodov and O. Dopfer, *Chem. Phys.* **239**, 393, 1998.