INFRARED SPECTROSCOPY OF PROTONATED MIXED BENZENE-WATER CLUSTERS

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Mixed clusters of protonated benzene and water are created via arc discharge in a molecular beam cluster source. Infrared spectroscopy (1000 cm^{-1} to 4500 cm^{-1}) of these mixed clusters $H^+(H_2O)_x(Bz)_y$ (x=1-4, y=1-4) tagged with argon is employed to investigate the structures of these clusters, particularly with regards to the location of the proton. Studies as a function of cluster size investigate solvation effects within the mixed clusters.