INFRARED STUDIES OF ALKALI HALIDE - HCN COMPLEXES IN HELIUM DROPLETS

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The alkali halides are characterized by strongly ionic bonding and a tendency to form cubic clusters. Helium droplets provide an ultracold environment for the assembly and investigation of small clusters of such molecules, and subsequent attachment of a chromophore allows high resolution IR study of the resulting complex. Infrared spectra of HCN-NaCl and HCN-LiF complexes are presented along with complimentary ab initio calculations.