

## HIGH-RESOLUTION INFRARED SPECTROSCOPY OF HCN-Zn<sub>n</sub> CLUSTERS

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Rotationally resolved infrared spectra have been obtained for the first time for transition metal complex-adsorbate systems. The zinc clusters are formed in helium droplets, to which are added a single HCN molecule. The C-H stretches of the complexes have been measured for HCN-Zn<sub>n</sub>, where n=1-4. The rotational constants and dipole moments are reported and compared to ab initio calculations.