ISOMERIZATION AND CHEMICAL REACTION DYNAMICS OF HCN-GA IN HELIUM NANODROPLETS

JEREMY MERRITT, GARY DOUBERLY, AND ROGER MILLER, *Department of Chemistry, University of North Carolina, Chapel Hill, North Carolina 27599*.

Two linear isomers of the HCN-(Gallium atom) radical - molecule complex have been stabilized in liquid helium droplets and the ensuing chemical and isomerization dynamics probed upon vibrational excitation. From IR-IR double resonance experiments we observe that vibrational excitation of Ga-HCN results in isomerization to the HCN-Ga isomer, while excitation of HCN-Ga results in a chemical insertion reaction.