INTRACLUSTER REACTIONS IN Ni-CO_2 CLUSTERS

JONATHON A. MANER, MATTHEW D. McDOWELL and MICHAEL A. DUNCAN, *Department of Chemistry, University of Georgia, Athens, Georgia 30602..*

Ni-CO_2 cluster cations were produced by laser vaporization of a Ni rod in a pulsed CO_2 expansion. Clusters were mass-selected in a time-of-flight mass spectrometer and studied with infrared laser photodissociation spectroscopy using an infrared OPO laser system. The infrared spectra of larger clusters provide evidence for an intracluster reaction assisted by CO_2 solvation. These spectra are compared to determine the reaction product.