Structures of cluster ions of triatomic molecules studied by infrared photodissociation spectroscopy

Infrared photodissociation (IRPD) spectroscopy is applied to cluster cations and anions of CO2, CS2, and other triatomic molecules to investigate the geometric and electronic structures. On the basis of the IRPD spectra in the 1000–4000 cm-1 region, we discuss the ion core structure and the structural evolution as a function of cluster size.