CORE ION STRUCTURES AND SOLVATION EFFECTS IN GAS PHASE $[Sn(CO_2)_n]^-$ CLUSTERS

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We report infrared photodissociation spectra of $[Sn(CO_2)_n]$ (n=2-6) clusters. We explore core ion geometries through quantum chemical calculations and assign our experimental spectra through comparison with calculated vibrational frequencies. We discuss our results in the context of heterogeneous catalytic reduction of CO_2, and compare our results with previous work on other post-transition metal species.