CHIRPED PULSE FOURIER TRANSFORM MICROWAVE SPECTROSCOPY OF SnCl

GARRY S. GRUBBS II AND STEPHEN A. COOKE, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF NORTH TEXAS, 1155 UNION CIRCLE #305070, DENTON, TX 76203-5017, U.S.A.

Tin metal has been laser ablated with the pulsed fundamental output of a Nd:YAG laser. Chlorine gas dissolved in argon was pulsed into the products of this ablation event. One outcome of this has been the formation of SnCl entrained in a supersonic expansion. The expansion occurred between the horn antenna of a chirped pulse, Fourier transform microwave spectrometer and accordingly the pure rotational spectra of SnCl, $X^2 \Sigma^+$, has been recorded for the first time between 8 and 18 GHz. Spectroscopic constants will be presented.