

Abstract Submitted
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Detecting Laser Ablation Products using Fast Passage Fourier Transform Microwave Spectroscopy: The Examination of the Open Shell Molecule, SnCl GARRY GRUBBS II, STEPHEN COOKE, University of North Texas — The rotational spectrum of the open shell molecule tin monochloride, SnCl, has been measured using a chirped pulse, Fourier transform microwave (CP-FTMW) spectrometer. Using this technique, large regions (2-4 GHz) of spectra with high resolution (kHz resolution) can be observed and averaged in short periods of time, cutting down spectral search times. Coupling this technique with a laser ablation source allows nonvolatile species such as metal containing molecules to be studied. The sensitivity to detect transient species such as SnCl will be discussed. Rotational constants, centrifugal distortion constants, and appropriate hyperfine constants will also be discussed.

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