THE PURE ROTATIONAL SPECTRUM OF SrSH ($\tilde{X}^2A$)

D. T. HALFEN, A. J. APPONI, L. M. ZIURYS, *University of Arizona*.

The pure rotational spectrum of SrSH ($\tilde{X}^2A$) in the vibrational ground state has been measured using direct absorption mm/sub-mm spectroscopy. The radical was produced by the reaction of vaporized Sr and H_2S gas in the presence of a DC discharge. Ten a-type dipole allowed transitions with K_a asymmetry components up to K_a = 6 have been recorded in the range of 350-405 GHz. Preliminary rotational constants (MHz) have been determined and are listed below. A full analysis of the spectrum, as well as a structure, will be presented.

A = 283504, B = 2877.287, C = 2845.508, $(\epsilon_{bb} + \epsilon_{cc})/2$ = 57.2