EXTENSION AND ENHANCEMENTS TO THE FAST SCAN SUBMILLIMETER SPECTROSCOPY TECHNIQUE (FASSST)

M. BEHNKE, I. MEDVEDEV, R. A. H. BUTLER, M. WINNEWISSER and F. C. DE LUCIA, *Department of Physics, The Ohio State University, Columbus, OH 43210*; D. PETKIE, *Department of Physics and Astronomy, Ohio Northern University, Ada, OH 45810*.

Several years ago we described a new approach to spectroscopy, the Fast Scan Submillimeter Spectroscopy Technique (FASSST). More recently we have described here and in the literature a number of spectroscopic studies which have been based on data obtained with this system. In this talk we will describe a number of enhancements and extensions to FASSST. These include the measurement of intensities, variable temperature studies to determine the absolute energy, signal averaging and the maximal use of information, and the development of a solid state
system with a compact frequency reference to replace the large Fabry-Perot system currently used.