

## COMPLETE RESULTS FROM A SPECTRAL-LINE SURVEY OF Sgr B2(N)

DeWAYNE T HALFEN, *Steward Observatory, University of Arizona, Tucson, AZ, USA*; LUCY M. ZIURYS, *Department of Chemistry and Biochemistry; Department of Astronomy, Arizona Radio Observatory, University of Arizona, Tucson, AZ, USA*.

A confusion-limited spectral line survey of the Galactic center molecular cloud Sgr B2(N) at 3, 2, and 1 mm (68 - 116, 130 - 172, and 210 - 280 GHz) using the Kitt Peak 12 m and the Submillimeter Telescope (SMT) of the Arizona Radio Observatory was recently completed. About 15,000 spectral lines were observed in the survey range. The data have been analyzed using two techniques. First, the rotational temperature diagram methods was used for each individual species. Second, an LTE code was used to model and ultimately fit the data to a set of parameters for each species, using a least squares approach. Seventy-four molecules are identified in the data, along with 81 isotopologue species. In addition, 26 excited vibrational states of the identified molecules were detected, as well as H and He recombination lines. Source and Galactic absorption lines are seen in several abundant species, as well as multiple maser lines of methanol and possibly SO<sub>2</sub>.