CURRENT RESULTS FROM A SPECTRAL-LINE SURVEY OF SGR B2(N)

D. T. HALFEN and L. M. ZIURYS, *Department of Chemistry, Department of Astronomy, and Steward Observatory, University of Arizona, Tucson, AZ 85721*.

One of the most chemically-rich giant molecular clouds is Sgr B2(N), which is located near the Galactic center. Using the Arizona Radio Observatory (ARO) telescopes, the Kitt Peak 12m and the Submillimeter Telescope (SMT), a spectral-line survey of this object at the confusion limit is being conducted across the entire 1, 2, and 3mm atmospheric windows from 65-280 GHz. The 3 and 1mm data are being collected with ALMA-type sideband separating mixers with unprecedented sensitivity and stability, as well as excellent image rejection. Typical noise levels achieved are 9-15 mK peak-to-peak. This survey is currently 70% complete. The current data show that several potential prebiotic species, such as acetamide and methyl amine, are present in this source, while others are not. These results indicate that interstellar chemistry follows specific pathways that selectively lead to certain compounds. A preliminary comparison of the currently detected species in Sgr B2(N) to the compounds found in meteorites will also be presented.