THE SEARCH FOR COMPLEX MOLECULES IN THE ISM: A 3mm LINE SURVEY OF SgrB2

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Famous for the extraordinary richness of its molecular content, the SgrB2 molecular cloud complex is the prime target in the long-standing search for complex species. Using the IRAM 30m telescope, we have surveyed the 3mm molecular spectrum of the SgrB2-M and N cores, achieving a sensitivity of ~ 25 mK (T_a^*). This, together with our analysis which involves modeling and fitting the whole spectrum at once, allows us to constrain the excitation regime of a plethora of known complex molecules, an indispensable piece of information on the way to the detection of new species.

Ongoing analysis yields an average line density of up to 100 features/GHz for SgrB2-N (the "Large Molecule Heimat"), translating into $\sim$3600 lines over the whole 80-116 GHz band, emitted and/or absorbed by a total of 51 molecular species plus their isotopologues. Thanks to the constant updates to the Cologne Database for Molecular Spectroscopy, we are working our way through the assignment of the unidentified features (currently 40% of the total).