

**GALACTIC ANTICENTER CO SURVEY:
OBSERVATIONS AND IDENTIFICATION
OF CLOUDS**

Y. Lee, J. H. Jung, H. S. Chung, H. G. Kim, Y. S. Park, H. R. Kim,
B. G. Kim, J. S. Kim, and S. T. Han

Korea Astronomy Observatory, Taeduk Radio Astronomy Observatory

We have mapped 17 square-degree region toward the Galactic anticenter in ^{12}CO J=1-0 using the 3mm SIS receiver on the 14 m telescope at Taeduk Radio Astronomy Observatory (TRAO). The mapped region presented in this paper is the first target of the Galactic AntiCenter CO Survey Project (GACCOS) and was selected comparing with IRAS Sky Survey Atlas (ISSA) images at 100 μm . Molecular emission of the target area is found to be very extended and is well matching with the FIR emission boundary. There are several pieces of clouds, and as some of spectra show several peaks, there seem to be several clouds overlapped in some directions. The Velocity of Local Standard of Rest (VLSR) of the mapped region ranges from -25 to +10 km/s. It is also found that a couple of cloudlets located around $l=180^\circ$, $b=5^\circ$ to 6° have VLSR=-20km/s, which is very abnormal. We developed a cloud identification code using IMFORT interface within IRAF, and identified the clouds of the mapped region with an arbitrary threshold temperature. Subclouds are also identified with a higher threshold temperature. The code can be used as a tree-code analysing the cloud complex, as well as cloud searching from a survey data set.

**HCO⁺ Observations of
the Protostellar Collapse Candidate B335**

Minho Choi

Institute of Astronomy and Astrophysics
Academia Sinica, Taipei, Taiwan
minho@biaa19.biaa.sinica.edu.tw

Among several protostellar collapse candidates, B335 has been known as the most convincing case. We observed B335 with multiple transitions of HCO⁺. All three lines (J=1-0, 3-2, and 4-3) show infall signature. The line profiles qualitatively agree with those calculated from simple infall model. However, HCO⁺ emission seems to be sensitive not only to the collapsing gas but also to the bipolar outflow.