

**A Spectral Line Survey of IRC+10216 in the Ranges
95.7–115.7 and 123.0–141.7 GHz**

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A spectral line survey of the circumstellar envelope of IRC+10216 in the ranges 95.7~115.7 and 123.0~141.7 GHz was carried out using the 14 m radio telescope at Taeduk Radio Astronomy Observatory (TRAO). The sensitivity achieved is typically 0.03 ~ 0.05 K, peak-to-peak. A total of 33 spectral lines were detected, including 7 unidentified features. The 26 identified lines are due to 9 different molecules and isotopomers which contain mainly carbon chain molecules. These data sets are the first survey results in these spectral regions. We derived the column density and excitation temperature of the observed species by using a local thermodynamic equilibrium approximation. In the case of the molecules with many identified rotational transitions, rotation diagram analysis is adopted for determining the excitation temperature and column density.