

[구SF-02] KVN Single-Dish Maser Line Surveys of Young Stellar Objects

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We carried out simultaneous 22GHz H₂O and 44GHz CH₃OH maser line surveys of about 1000 galactic YSOs using KVN 21m telescopes. The sources consist of low-mass, intermediate-mass, high-mass YSOs in different evolutionary stages. We will present the preliminary results.

[구SF-03] Spitzer IRS mapping of L1251B

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L1251B, which was revealed as a small group of protostars by the Spitzer Space Telescope (SST), presents a great site of studying chemical evolution in gas and ice as well as various dynamical processes associated with star formation (infall, rotation, and outflow). We have mapped L1251B with the Infrared Spectrograph (IRS) aboard the SST to study the chemical distribution in the phases of gas and ice and the dynamical feature related to shock in the region. Various atomic lines and the H₂ pure rotational lines, which trace different shock velocities, were detected. In addition, the distribution of the water and CO₂ ices hints variety of the ice desorption mechanism in L1251B.