[S04-2] Molecular Line Observations of the Giant Molecular Cloud Associated with HII Region S152

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S152 is a part of a giant molecular cloud complex, S147/S153, which consists of several dense cores containing HII region. We analyzed the FCRAO 12CO (J=1→0) Outer Galaxy Survey data to study the kinematical structure of this region and found that there exist three different velocity components, about -48, -50, and -54 km s-1. There also exist velocity gradients of 0.21 km s-1 pc-1 and 0.16 km s-1 pc-1, of an opposite direction with each other. It is likely that the velocity structure of this region may result from the merge of two different gas clouds. The interaction between the observed neutral gas cloud and the SNR 109.1-1.0 seemed to have occurred later, after the formation of this cloud complex. We have also mapped the S152 region using 3mm transitions of HCO+ and CS with the Taeduk Radio Astronomy Observatory (TRAO) 14-m telescope and Seoul Radio Astronomy Observatory (SRAO) 6-m telescope. Fractional abundances of CS and HCO+, relative to H2, were found to be 1.3×10-8 and 2.7×10-8, respectively, toward the S152 core region. We discuss chemical variations of this region in relation to kinematical properties.

[S04-3] Far-Ultraviolet Characteristics of Lupus Loop Region Observed with FIMS

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We present the first global far-ultraviolet (FUV) observation toward Lupus Loop, which was performed by Far-ultraviolet Imaging Spectrograph (FIMS also known as SPEAR) aboard the first Korean science satellite, STSAT-1. We divided the observed region into several subregions referring other band-pass maps. We detected C IV, Al II, Si II, and H2 fluorescent emission-lines in a few subregions. Generally, subregional FUV spectra showed consistent spectral characteristic with those of other band-pass map. C IV emission was more concentrated on Lupus Loop relative to other subregions. We analyzed H2 fluorescent emission-lines with Sternberg's(1989) model, and obtain the upper limit of 1 pc for the length scale of fluorescent zone.