tral cavity coincides well with the nebulosities associated with LkHα 349 and LkHα 349/c. Therefore, the cavity may be formed by the interaction between the stellar wind from the pre-main sequence stars and the globule.

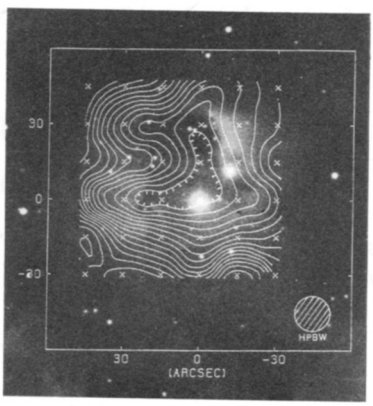

Fig. 3. A ^{13}CO integrated intensity map of the central part of the globule. The velocity intervals are from -10 to -6 km/s. The observed points are indicated by crosses. The two brightest stars are LkHα 349 (the brighter) and LkHα 349/c (the fainter). The photograph is a partial reproduction of Osterbrock's plate (courtesy Dr. D.E. Osterbrock).

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CO OBSERVATIONS OF DRACO CLOUDS, UNUSUAL HIGH LATITUDE CLOUDS

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Due to highly sensitive detectors and to the observers' efforts the observations of high galactic latitude clouds (HLC) have been improved in the last few years. The detection of infrared cirrus clouds, which were discovered by the IRAS (Low *et al.* 1984), strongly stimulated research on HLC. It is generally considered that HLC are small clouds which lie around 100 pc of the Sun (Blitz *et al.* 1984). This idea is consistent with their small velocity (V_{LSR}) in the CO (λ = 2.6 mm) line.

Though Draco clouds are HLC (b $\sim$ 38°) with faint optical emission, they are different from the other HLC. Their distance from the Sun is estimated to be about 800 pc by a UBV-photometric study (Mebold *et al.* 1984). The distance is consistent with the negatively large V_{LSR} ($\sim$ -19 or -27 km/sec) in the H I (λ = 21 cm) and CO lines. The observations in

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the H I line with the Effelsberk 100-m telescope (Goerick *et al.* 1983) and the Westerbork synthesis radio telescope (Kalberla *et al.* 1984) indicate the possibility that at the shock front of the high velocity H I gas the molecular cloud is being constructed.

We observed Draco clouds in the ^{12}CO(1-0) and ^{13}CO(1-0) lines with the 4-m mm-wave telescope of Nagoya University. The ^{12}CO maps show a good agreement with the filamentary structure of the optical photograph. The estimation of the ^{13}CO column density indicates that each cloud in Draco clouds is lighter than the mass needed to be bounded by the gravitational force.

A NEW MOLECULAR CORE IN L1641

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L1641 is a large dark cloud which extends 6.3 degree^2 to the south of the Orion nebula (Lynds 1962). This region contains a reflection nebula, NGC 1999, several emission line stars and Herbig-Haro objects and is thought to be a site of on-going star formation. A CO(J = 1-0) map obtained with the Nagoya 1.5 m telescope (Takano 1983) revealed that CO hot spots extend further to the north by $\sim$ 30' from NGC 1999. This suggests that L1641 may contain other regions of recent star formation. Therefore, we have mapped the L1641 cloud to investigate if there are other star-forming regions in it.

The observations were made with the 4 m millimeter wave telescope of Nagoya University. The half-power beam width was 2.7' at 110 GHz and the velocity resolution was 0.1 km/s. The ^{12}CO and ^{13}CO (J = 1-0) lines were mapped with 1.5' - 3' grid spacings.

Figure 1 shows the H_2 column density map derived from the ^{13}CO column density. Two large condensations are seen in the map; the southern condensation (R.A. = $5^h33^m48^s$, Dec. = -6°48'00") lies near NGC 1999 and the northern condensation (R.A. = $5^h34^m00^s$, Dec. = -6°25'30") has been revealed by the present observations. We have detected HCO^+ and HCN (J = 1-0) lines in the center of each condensation. This indicates the existence of dense cores ($n(H_2) \geqq 10^4$ cm^{-3}) in each condensation. We have also detected ^{12}CO high velocity wings (V_{wing} = 15 km/s at 100 m K level) in the center of the northern condensation. Recently, a luminous IRAS source ($L \geqq 200\ L_\odot$) and a Herbig-Haro object (Ogura 1985) were discovered near the center of the northern condensation. These signposts strongly indicate the detection of a new site of active star formation in L1641.

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