We discuss the following models for explaining this phenomenon: (1) cloud-cloud collision, and (2) energetic, long-term ($\gtrsim 5\times10^5$ yr) active event in the region of GL490. The unusually low ^{13}CO intensities in the -20 km/s cloud suggest that the -20 km/s cloud is not a usual dark cloud . Therefore, model (2) is more favorable than model (1). At present we know of no source of activity other than GL490 itself in the observed region. If the active event is solely ascribed to GL490, the implied time scale and the spatial extent (about 5 pc) are remarkably large compared to those of usual molecular outflow sources.

S106-IRS4: A STAR LOOSING MASS IN THE CENTRE OF A BIPOLAR NEBULA

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S106-IRS4 is the brightest near IR source associated with the S106 bipolar nebula. It is located exactly at the centre of the bipolar structure, inside the narrow gap of emission between the two radio lobes. It is also a weak radio source. An analysis of the near IR photometric measurements and of the radio fluxes suggests the presence of an ionized envelope produced by mass loss of the early type star which is responsible for the ionization of the nebula (Felli *et al.* 1984).

We present higher resolution 1.3 cm wavelength VLA observations that set an upper limit to the size of the radio envelope and FTS velocity resolved Brackett-α and -γ profiles (Felli *et al.* 1985).

The part of the envelope that is optically thick at 1.35 cm wavelength is smaller than 0".15 in diameter which corresponds to 90 AU at a 600 pc distance. The profiles of the Brackett-α and -γ lines are somewhat different with half power widths of 121±10 and 181±15 km s^{-1} respectively. The He I $(2^1P - 2^1S)$ line is detected at the S106 nebula but not at IRS4. The He I line emission of the nebula indicates that the central star of IRS4 must have an effective temperature of about 35 000 K. A comparison of the wind model scenario presented by Felli *et al.* (1984) with the present data and the Paschen line and Paschen edge data of McGregor *et al.* 1984) shows that the model encounters difficulties when observables that require details of the velocity field and of the innermost regions of the flow are considered. Observations that should improve our understanding of the central regions of IRS4 are proposed. Preliminary results of 6-cm wavelength VLBI observations are also presented.

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HYDROGEN CYANIDE IN THE BIPOLAR SOURCE CEP A

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The Cep A molecular cloud has been mapped in the 87 GHz continuum and in the $J = 1-0$ transition of HCN with a combination of single antenna and interferometer observations. The resolution is 19"×14" (about 0.06 pc at the distance of Cep A) and 0.8 km/sec in velocity.

We have detected a 115 mJy continuum source which we identify with the source of the extended bipolar molecular outflow. In the HCN line, we find a quiescent cloud located about 20" east of the continuum source. This cloud has a mass of about 100 $M_\odot$. It shows no evidence for either bipolar outflow (unlike CO) or for rotation (unlike NH_3). We argue that this cloud has deflected the blue-shifted lobe seen in CO emission and reduced the momentum of the flow in that lobe. A full account of this paper appeared in Astron. Astrophys. 153, 139, 1985.