to 4.2 K in conjunction with a high-order tunable Fabry-Perot at ambient temperature. High resolution is thus obtained while minimizing the thermal background radiation incident on the detector. The detector is a liquid helium cooled Ge:Ga photoconductor. The [O III] emission at 88.35 μm has been mapped with 1 arcminute resolution in the H II regions M7, W3, W51, NGC 7538 and M42. In the M17 molecular cloud, the emission closely follows the radio continuum contours, extending for several arcminutes along a northeast-southwest line. W3 is smaller than our beam, with the emission centered on IBS1. W51 and NGC 7538 show extended emission covering four to six arcminutes. In M42, while there is some emission around the Kleinman-Low nebula, the line appears most strongly in the Trapezium. [O III] emission was also detected in W49. The [O I] fine structure line at 63.2 μm has recently been detected in M42 by McLain, Gull and Harwit (in press) with a 4 x 6 arcminute beam. We have made a preliminary map of M42 with 1 arcminute resolution and find that this emission is strongest in the Trapezium and in the bright optical bar to the southeast. We have also detected this line in DR21(OH). We wish to thank K. Shivanandan for providing us with the detector and integrating cavity. This work is supported by NASA Grant NGR 05-003-511.

15.P3.06 HR 3337: A Spectroscopic-Visual Quadruple System. FEKEL, P., U. of TX, at Austin. Blue spectroscopic observations of HR 3337+ADS 6828AB (sp. ty.F8) indicate that both components of the close visual system (P=53 years) are spectroscopic binaries with periods of 2.50 and 5.98 days. The spectroscopic secondary of the 6 day system and possibly that of the 2.5 day system were found in the red using the coude spectrum of the McDonald Observatory 2.7 m telescope. Both binary systems have mass ratios of 1.6 indicating the spectral types of the secondaries are both late F. Spectroscopy and photometry of ADS 6828C indicate it is a member of the system and give a parallax of 0.012 and total mass of AB6.7M..

16.P3.06 A Visible Candidate for the Hulse-Taylor Binary Pulsar. - J. Kristian and J.A. Westphal, Hale Observatories. - We have found a possible visible counterpart to the binary pulsar 1913+16. Direct imaging data taken in 1976 and 1977 with SIT and CCD detectors shows a faint point source located within 1/4 arc second of the radio position. At an apparent magnitude V = 22.5, it is several magnitudes brighter than published limits for the visible pulsed radiation. If the new object is related to the pulsar, therefore, it is more likely to be the previously undetected binary companion. This work was supported in part by the National Science Foundation.

17.P3.10 Optical Detection of CL 4. - S. TAPIO, Lunar and Planetary Lab., F. J. WABA, Naval Obs. Flagstaff, and T. FURELID, Kitt Peak Natl. Obs. - The unresolved radio source designated as Cygnus Loop 4 by Keen et al. (1975, Astr. and Ap. 28, 197) displays the radio characteristics common to BL Lacertae objects. However, the distance to CL 4 appears to be < 1 Kpc as deduced from the absence of 21-cm absorption at galactic latitude b = -8° (Webster and Ryle 1976, M. N. © American Astronomical Society • Provided by the NASA Astrophysics Data System