

---

# A Spectroscopic Observation of the Comet Hale-Bopp A Preliminary Result

Eon-Chang Sung, Sang-Hee Kim, Ho-II Kim, Hong-Kyu Moon  
Korea Astronomy Observatory

We present two-dimensional high/low resolution spectroscopy for the comet Hale-Bopp. High/low resolution spectroscopic observations were carried out on 1996 September 5-15 with the Cassegrain spectrograph on the MSO 74 inch telescope equipped with 1752×532 CCD. A slit of 2.7 arcsec width and 3 arcmin length was placed along the EW and PA=135 degree. The 300, 1200 lines/mm grating was employed for low and high resolution spectra, respectively. The low resolution spectra cover the wave length range 3,400Å <math>\lambda</math>8,500Å with a resolution of 1Å/pixel. The high resolution spectra cover wavelength range of 450Å with a resolution about 0.24Å/pixel near H $\alpha$ , H $\beta$  and H $\gamma$ . From the two-dimensional spectra for the Comet Hale-Bopp, typical emission bands like CN, C2, C3 and NH2, and other emission lines are detected with solar absorption features. We will discuss a preliminary result for the spectroscopic observations of the comet.