

The purpose of this research is a study about the spectrum of the sky at night because the spectrum of the sky usually appear when we photograph the spectrum of the celestial objects. In this analysis, the CCD Spectrograph with 600 grooves/mm grating uses for photograph spectrum and it is connected with the 16 - inch Cassegrain reflecting telescope at Sirindhorn Observatory, Chiang Mai University. The Kestrel Spec program is used for spectrum analysis with a wavelength interval at 560-728.85 nm. Observations were done during June - July, 2002.

It was found that most of the sky spectra were produced by luminosity from Chiang Mai city and some were the spectrum of the elements in the atmosphere which were composed of atoms of several elements such as Mercury, Sodium, Nitrogen, Oxygen and Inert gas. The spectrum line from this analysis might be used for reference in other research about photographing the spectrum at the same area.

The data of this research has been constructed into a laboratory kit for the benefit of teaching and further learning.