

Laboratory Week #14 ATOMIC SPECTRA

Obtain a diffraction grating from the MSLC desk, and locate the video room in which discharge tubes have been set up to view emission spectra. In this room you will find a chart on the wall with the emission spectra of selected elements for your perusal.

Turn on the spectral power supply and use the hand-held diffraction grating to observe the line spectra originating from the various discharge tubes set up in the room. THE TUBES GET VERY HOT; DO NOT TOUCH THEM.

Try to identify the chemical elements in the discharge tubes from the spectra that you observe, as compared to those in the wall chart. Write a paragraph on spectral lines and what they signify.