

## SPECTROMETER / COLORIMETER - flame

Cat: CH3792-001 Flame emission and Atomic Absorption

**DESCRIPTION:** The IEC 'Flame and AA Spectrometer' is used for the teaching of analytical chemistry. It introduces instrumentation to the student which is similar in function to that used in the workplace. The 'IEC Spectrometer' can demonstrate the principles of both flame and atomic absorption spectrometry. It is used also as an accurate colorimeter.

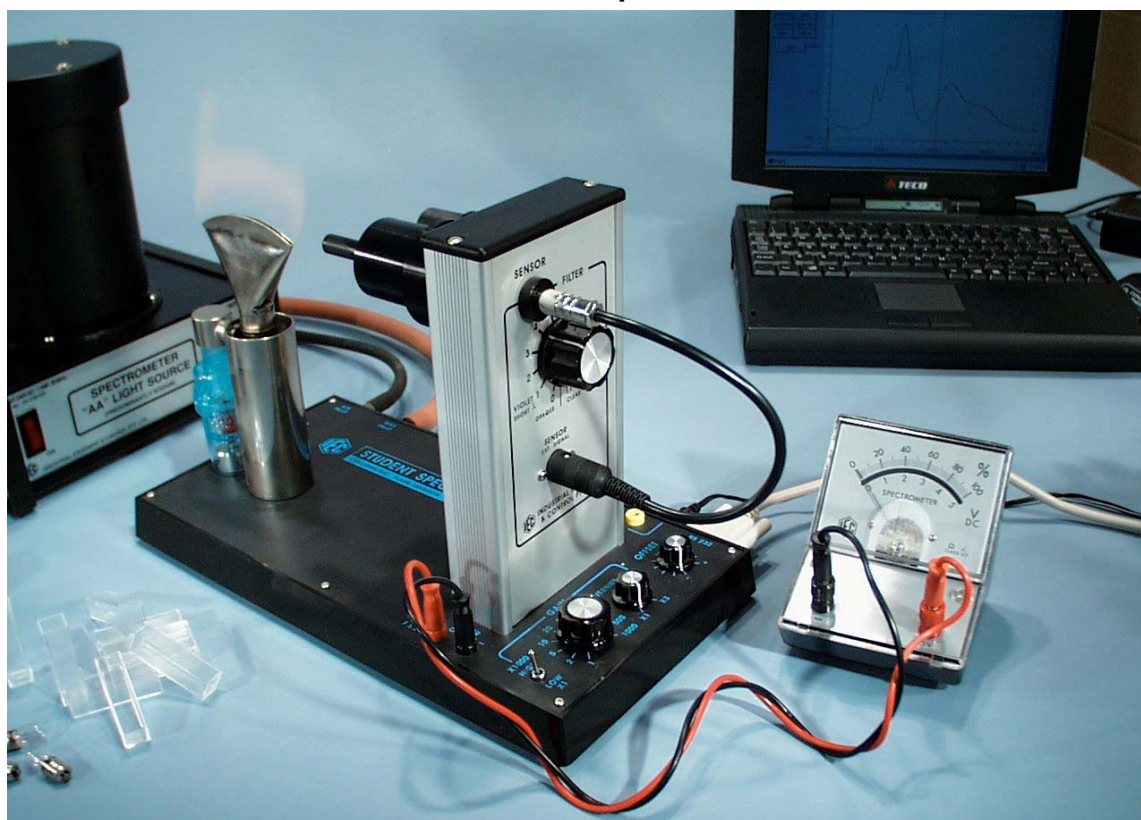
Results can be handled in two ways:

- **Manually:** by taking readings on the special meter provided in the kit and then calculating the results and plotting the various graphs manually or
- **Automatically:** by recording all data, readings and results on a computer disk and manipulating data graphically. The students' work can be saved for later reference.

This instrument is not limited to spectrometry. By removing the spectrometer's light sensor from the control panel and by inserting the external signal cable, the unit can be used as a convenient very high gain signal amplifier for other experiments. Signals can be applied from say a gas chromatograph and the results handled by either the meter or the software.

Most laboratories have a sodium vapour light source however, if required, IEC can provide a suitable low-cost sodium vapour light source for atomic absorption work.

### CH3792-001 flame spectrometer & colorimeter



Physical size: 320x167x220 LxWxH

Weight: 4.2 kg

**KIT CONTAINS:**

- 1 pce spectrometer unit and light detector on cable.
- 1 pce flame spreader for top of burner
- 1 pce plug-pak power source, 12V.AC.
- 1 pce cable for connecting to the 9 pin serial port of a computer (9M/9F).
- 1 pce adaptor to convert the cable to suit a old type 25 pin serial port (9M/25F).
- 1 pce cable with DIN plug for external uV/mV signals.
- 1 pce bench meter (0-100% & 0-5V.DC. scales) for measurements.
- 1 pr connecting leads for meter, red / black.
- 1 pce atomiser (nebuliser) to feed a mist of sample fluid into the flame.
- 10 pcs cuvettes for colorimetric samples.
- 3 pce spare globes for colorimetric light source.
- 1 pce handbook of instructions and many experiments.
- 1 pce CD or 3-1/2" software floppy disc with instructions.

**IEC provides an extra document for more information on using the Flame Spectrometer. This document is designed to provide basic explanations of the principles and should be read and fully understood before performing experiments using the main handbook supplied with the equipment.**

**A suitable light source for Spectrometry (not supplied with the Spectrometer):**

**CH3792-020 (sodium)**

**Designed and manufactured in Australia**