RESOLVING POWER OF GRATING

Model: RPG-201/033

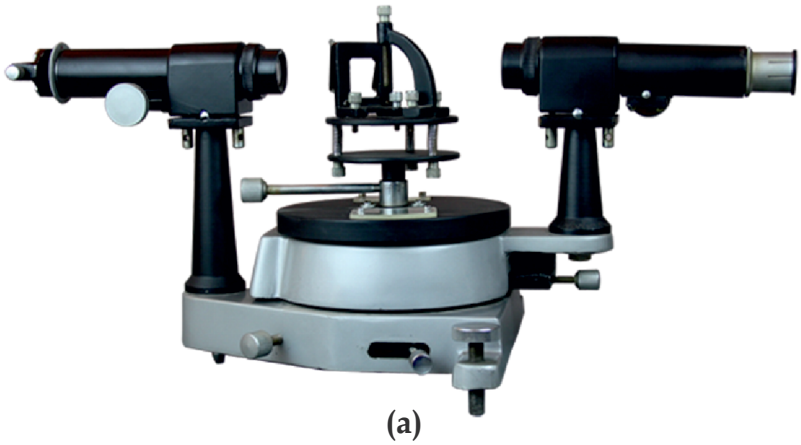
Experiment(s):

1. Determination of grating constant and resolving power of grating

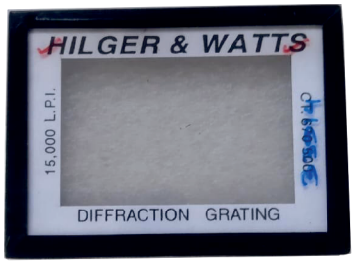
2. Measurement of wavelengths of mercury spectrum

(For more details, procedure & manual visit: www.kamaljeeth.net)

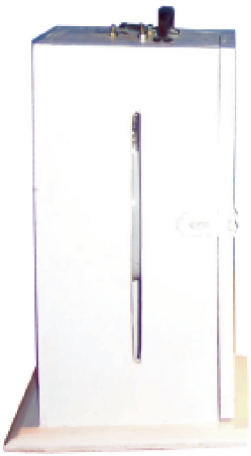
Reference : Lab Experiments Journal vol-11, No.1, Page-45
Lab Experiments Journal vol-15, No.4, Page-278



(a)



(b)



(c)

Experiment setup consists:

a) Spectrometer

b) Diffraction grating

c) Mercury vapour lamp set

Specifications:

a) Spectrometer
Scale: 6" diameter (Brass)
Base: Cast iron with levelling screw
All moving parts made of Brass for accuracy
Collimator with adjustable slit
Horizontal axis alignment for collimator: Yes
Horizontal axis alignment for telescope: Yes
Centre table: Height adjustable with provision for prism and grating holder
Telescope with user changeable cross wire and eyepiece

b) Diffraction grating
Grating constant: 15000 Lines/inch
Window size: 40 mm x 30 mm

c) Mercury vapour lamp
Bulb: Philips/Osram
Power: 160 W
Transformer free operation
Enclosure: Wooden with slits
Rated Input: 220 V/50 Hz
or 110 V/60 Hz