

**Experiment(s):**

1. Determination of  $e/m$  of an electron by Thomson's method

(For more details, procedure & manual visit: [www.kamaljeeth.net](http://www.kamaljeeth.net))

Reference : Lab Experiments Journal vol-11, No.4, Page-253



(a)

(b)



(c)

(d)



(e)

**Experiment setup consists:**

- Power supply
- CRT tube
- Stand
- Compass
- Magnet

**Specifications:****a) Power supply**

High tension and low tension bias supply for CRT tube, Variable deflection voltage for x-shift and y-deflection beam movements

Meter: Digital voltmeter for measuring deflection potential  
Rated Input: 220 V/50 Hz  
or 110 V/60 Hz

**b) CRT tube**

Diameter: 60 mm  
Scale: x-axis and y-axis marked in mm with zero adjustment & position of deflecting plates marked

**c) CRT/Compass stand**

Material: Acrylic  
Magnet guide bed: For equi-distance movement up to 15 cm on either sides

**d) Compass**

Size: 100 mm diameter  
Mirror for reduced parallax error

**e) Bar magnet pair**

Material: AlNiCo  
Size: 50 mm



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