

Cathode Ray Tub

Recommended for Chapter(s): 2

Demo #008

Procedure

1. Hook anode wire to end of the tube labeled anode.
2. Hook cathode wire to other end of the tube.
3. Plug in device.
4. Dim the lights in the classroom so that students can see the e -beam more readily.
5. Switch device on.
6. A magnet can be placed close to the e -beam to bend the beam.

Clean Up

1. Return items stockroom.

Stockroom Notes

1. Return items to demonstration tub.
2. Return the materials to the cart in the demonstration library room.

Discussion

When a high potential is placed between two electrodes in a glass tube, a beam of electrons is formed. The same type of beam is formed no matter what the material is. Therefore, electrons must be a fundamental particle in all atoms. You can show that the electrons are charged by placing a magnet near the electron beam which bends the electron beam.

Materials in Box

1. Cathode ray tube
2. Bar magnet