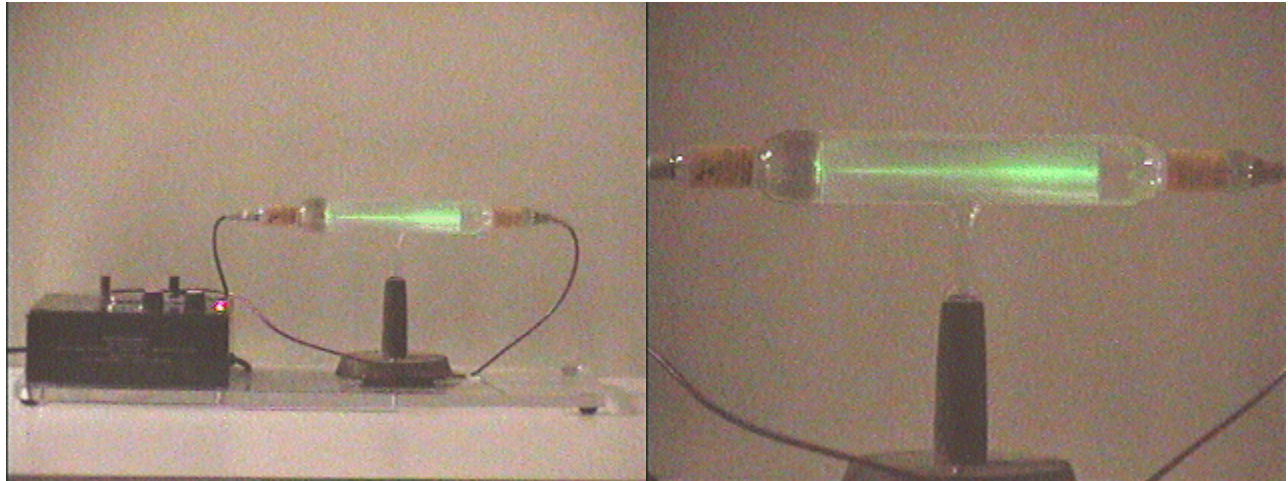


Question #58

Electrons are emitted at the left of the device shown in the photograph at the left above. As they move from left to right in the partially evacuated tube, they pass through a defining slit and are rendered visible when the resulting beam strikes a fluorescent screen, as seen in the close-up photograph at the right.



A bar magnet will now be moved close to the electron beam, with the North end of the magnet closest to the tube, so the magnetic field lines are pointed away from the viewer into the picture. What will happen to the path of the electron beam as the magnet is moved close to the tube?

The electron beam will:

- (a) deflect upward.
- (b) deflect downward.
- (c) deflect into the picture.
- (d) deflect out of the picture.
- (e) remain moving along the same line.

Click here for [Answer #58](#) after April 2, 2001.

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For questions and comments regarding the *Question of the Week* contact [Dr. Richard E. Berg](#) by e-mail or using phone number or regular mail address

given on the [Lecture-Demonstration Home Page](#).