

- Lorentz Force,
- \mathbf{B} does no work
- Cyclotron motion
- e/m apparatus
- Ampere's law, source of magnetic fields.
- Field of a wire
- What is current?
- Force on a current
- Force between wires
- Field of a solenoid

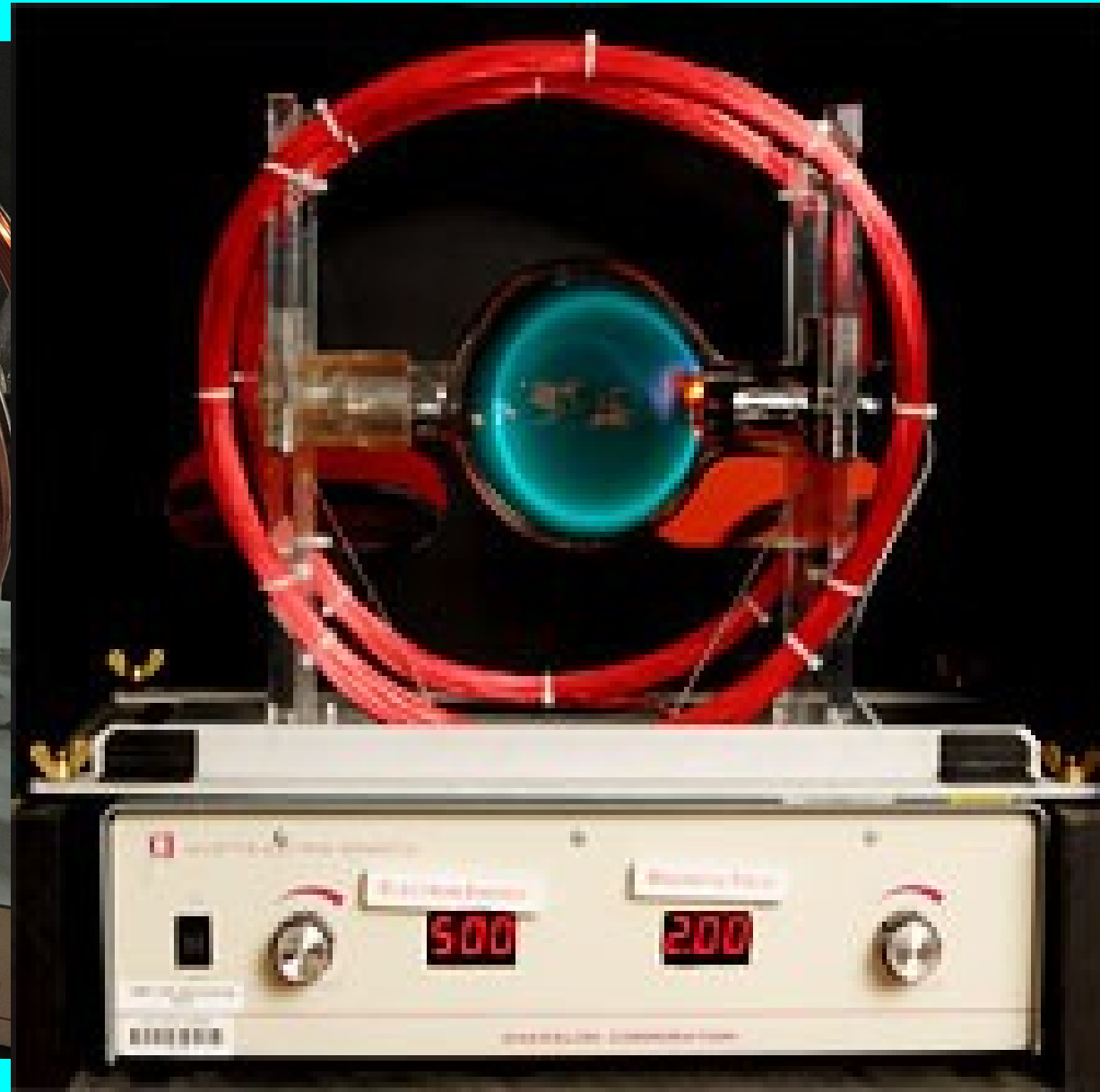
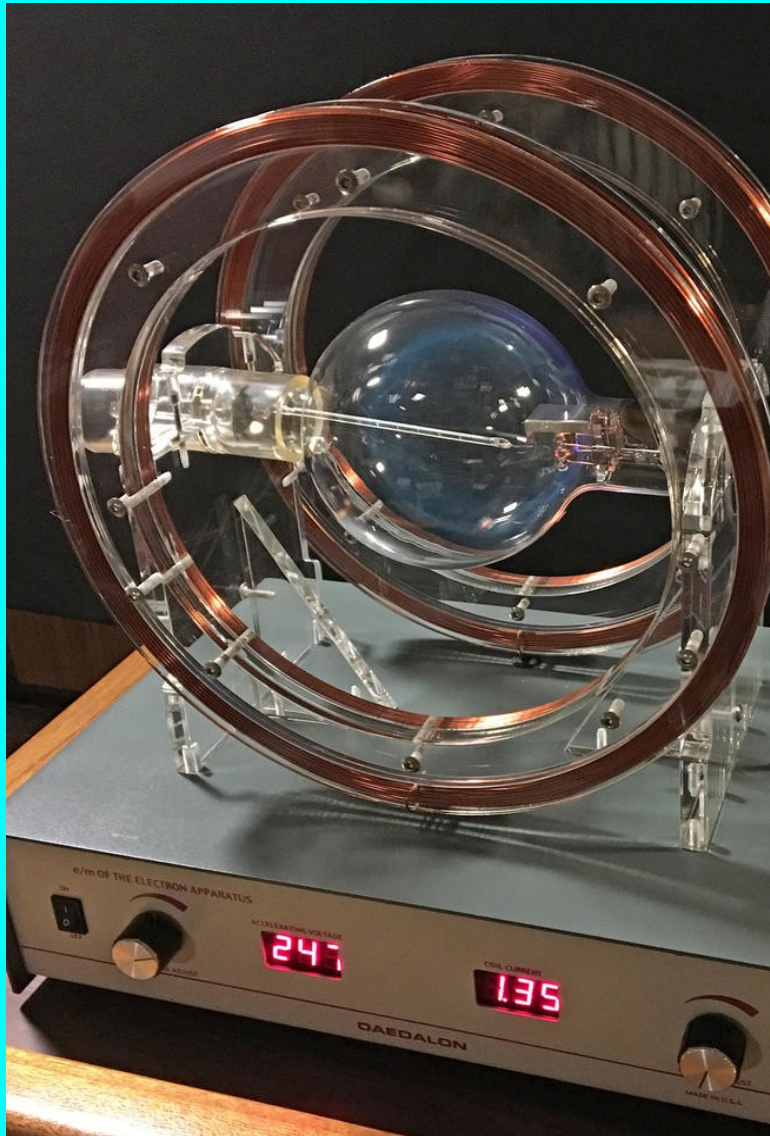
Lorentz Force

$$\vec{F} = q \vec{E} + q \vec{v} \times \vec{B}$$

B does no work?

Cyclotron motion $\vec{F} = q \vec{v} \times \vec{B}$

e/m apparatus



e/m apparatus

Measurements, $V=100\sim V$, $I=0.5$ Amps, $r=7$ cm, $B=1200$ uT