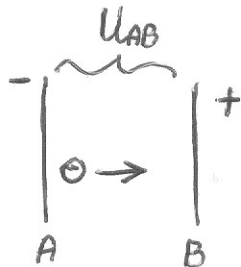


15.)

$$U = 20 \text{ V} \quad v_0 = 0 \quad m_e = 9,1 \cdot 10^{-31} \text{ kg} \quad q = -1,6 \cdot 10^{-19} \text{ C} \quad \alpha = 30^\circ \quad B = 0,2 \text{ T}$$

Tér munkája: $W = qU$ Munkatétel: $\Delta E_k = W_0$

Lorentz-erő: $\vec{F} = q\vec{v} \times \vec{B}$ $E_k = \frac{1}{2} m v^2$



$$U_{AB} = U_A - U_B$$

$$W = -e U_{AB}$$

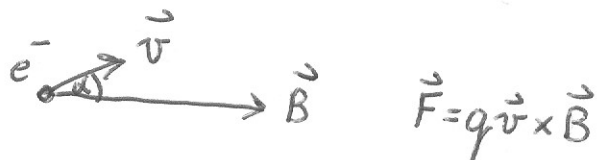
$$W = \Delta E_k$$

$$\Delta E_k = E_{kv} - E_{k0} = E_{kv} = \frac{1}{2} m_e v^2$$

$$\text{Tehát } -e U_{AB} = \frac{1}{2} m_e v^2$$

$$\Downarrow$$

$$\underline{\underline{v}}$$



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

$$\text{Nagysága: } F = |q| v B \sin \alpha = \dots$$