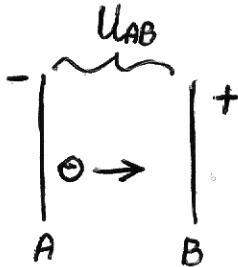


7.) $U = 20V$ $v_0 = 0$ $m_e = 9,1 \cdot 10^{-31} \text{ kg}$ $q = -1,6 \cdot 10^{-19} \text{ C}$ $\alpha = 30^\circ$ $B = 0,2 \frac{\text{Vs}}{\text{m}^2}$

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

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



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

$$W = -eU_{AB}$$

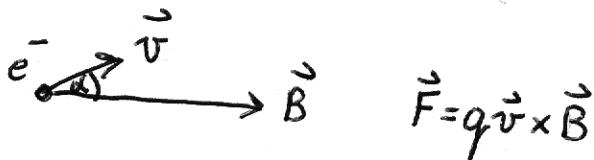
$$W = \Delta E_k$$

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

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

$$\Downarrow$$

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



Nagysága: $F = |q|vB \sin \alpha = \dots$