

12.)  $U_e = 1,8V$   $\lambda_0 = 635nm$  a.)  $W_{ki} = ?$  b.)  $f, \lambda$  c.)  $P_{\gamma} = ?$

$$q = -e = -1,6 \cdot 10^{-19} C$$

$$h = 6,626 \cdot 10^{-34} Js$$

$$W = qU \quad W = \Delta E_k$$

$$hf = W_{ki} + E_k$$

a.) határ:  $E_k \approx 0$

$$W_{ki} = hf_0 = h \frac{c}{\lambda_0} = \dots$$

b.)

$$W = qU = -eU_e = \Delta E_k \quad (\text{ellenfeszültség megállítja})$$

$$-eU_e = 0 - E_k \quad (\Delta E_k < 0)$$

$$E_k = eU_e \quad - \text{kilépő } e^- \text{ energiája}$$

$$hf = W_{ki} + E_k \rightarrow f = \dots$$

$$\lambda = \frac{c}{f} = \dots$$

c.)

$$P_{\gamma} = \frac{h}{\lambda} = \dots$$