

Subiectul D. OPTICĂ

Nr. item	Soluție/Rezolvare
III.a.	$L_{\text{ex}} = h \frac{c}{\lambda_0}$ <p>rezultat final: <math>L_{\text{ex}} \cong 5,96 \cdot 10^{-19} \text{ J}</math></p>
b.	$E_{\text{cmax}} = \frac{hc}{\lambda} - \frac{hc}{\lambda_0}$ <p>rezultat final: <math>E_{\text{cmax}} \cong 1,65 \cdot 10^{-19} \text{ J}</math></p>
c.	$E_{\text{cmax}} = eU_s$ $U_s = \frac{hc(\frac{1}{\lambda} - \frac{1}{\lambda_0})}{e}$ <p>rezultat final: <math>U_s = 1V</math></p>
d.	$I = \frac{q}{t}$ <p>Nr electronilor de conducție = <math>fN_{\text{fotoni}}</math></p> $q = N \cdot e$ $P = \frac{N_{\text{fotoni}} h \frac{c}{\lambda}}{t}$ $I = \frac{P \lambda e}{hc} \cdot f$ <p>rezultat final: <math>I \cong 0,34 \text{ mA}</math></p>