

$E_2$  ①  $E = R_H \left( \frac{1}{n_i^2} - \frac{1}{n_f^2} \right)$  Find  $\lambda$

②  $E = hf$

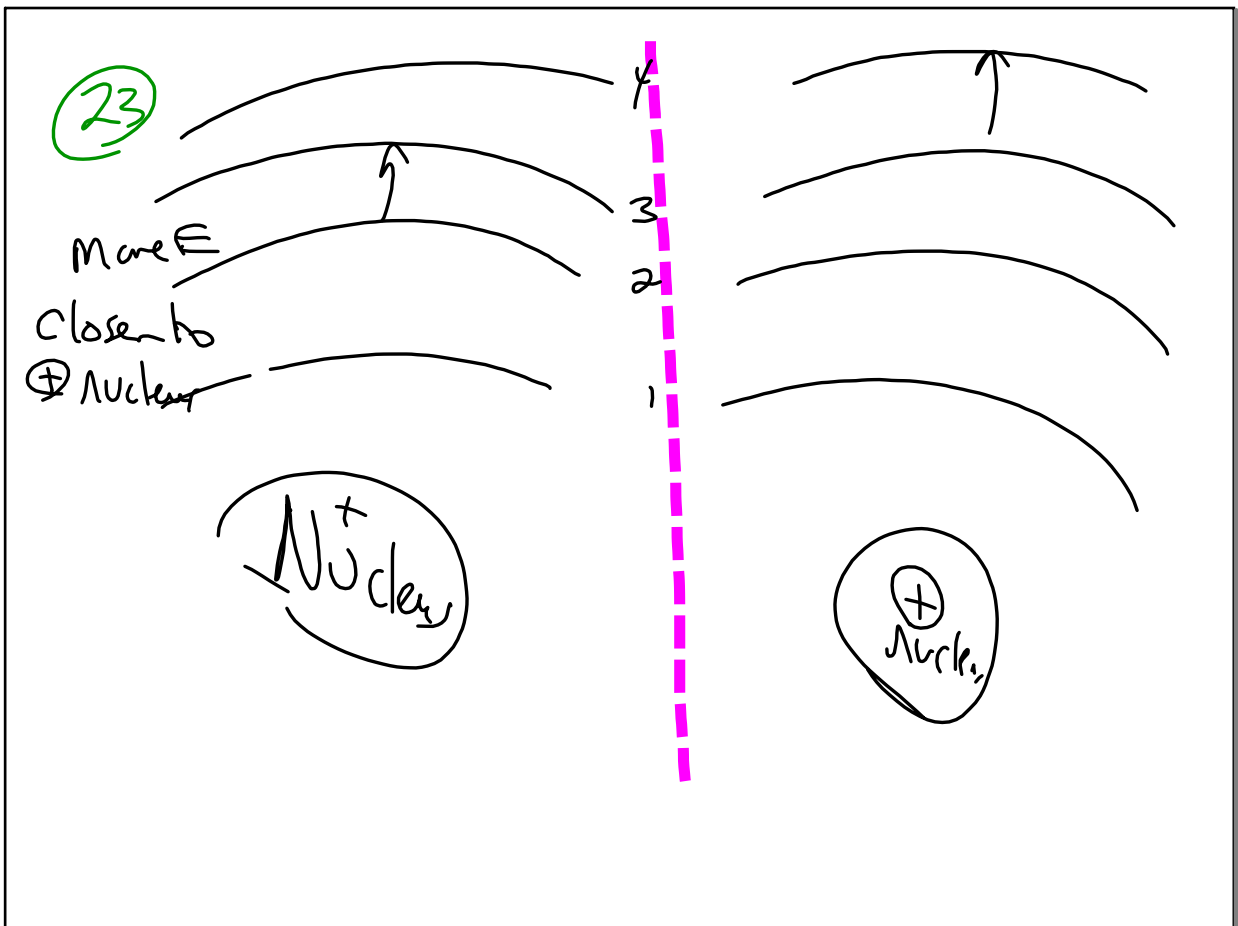
③  $c = f\lambda$

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

$E = \frac{hc}{\lambda}$

$\lambda = \frac{hc}{E}$

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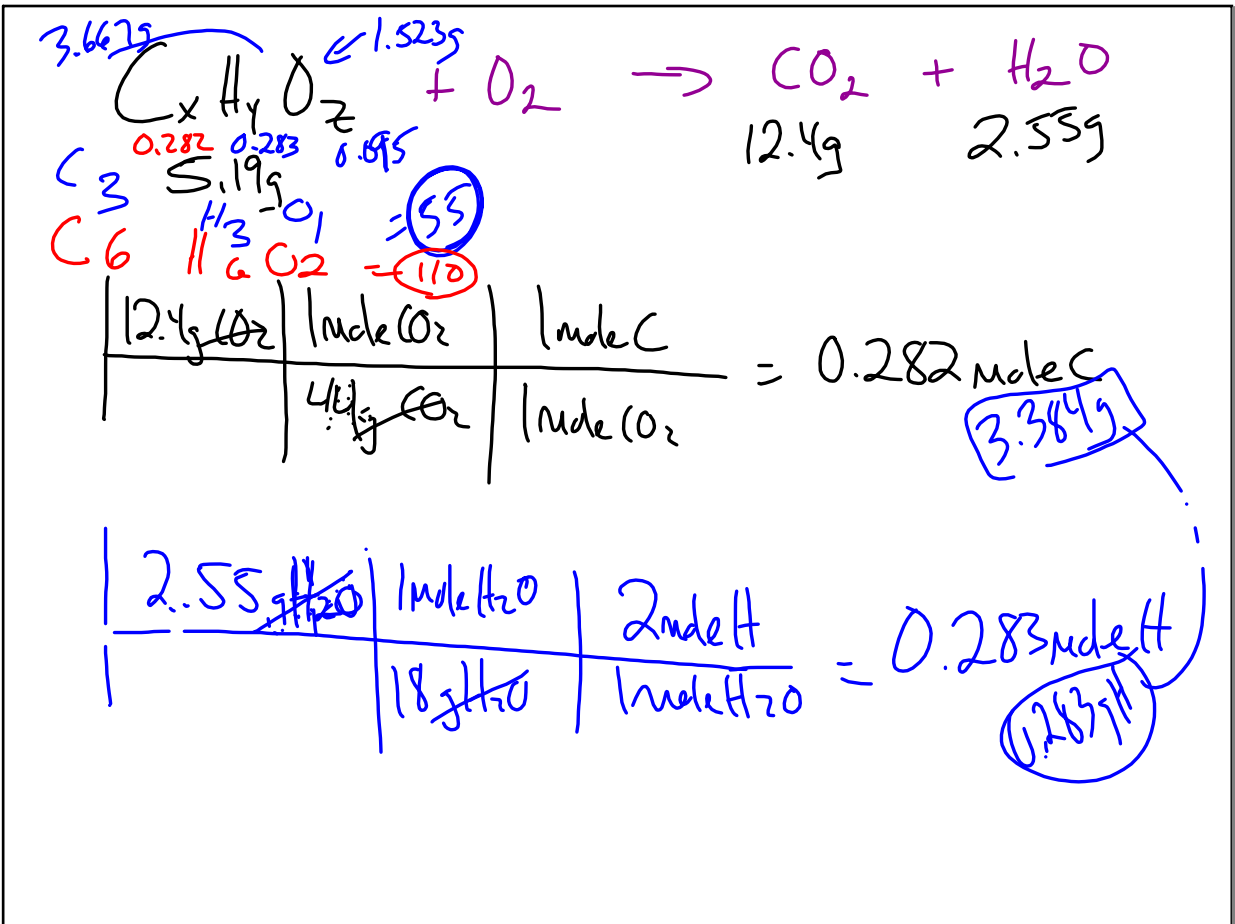
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ECI
metal Cr
water

$$M_c \Delta T = M_w \Delta T$$

$$(100)(0.448)(100 - T) = (50)(4.18)(T - 20)$$

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①  $4\text{Al} + 3\text{O}_2 \rightarrow 2\text{Al}_2\text{O}_3$   
 2.5g                      2.5g                      → 3g

① 

2.5g Al	1 mole Al	2 mole $\text{Al}_2\text{O}_3$	102g $\text{Al}_2\text{O}_3$
	27g Al	4 mole Al	1 mole $\text{Al}_2\text{O}_3$

LR  
4.72g  $\text{Al}_2\text{O}_3$

② 

2.5g $\text{O}_2$	1 mole $\text{O}_2$	2 mole $\text{Al}_2\text{O}_3$	102g $\text{Al}_2\text{O}_3$
	32g $\text{O}_2$	3 mole $\text{O}_2$	1 mole $\text{Al}_2\text{O}_3$

5.31g  $\text{Al}_2\text{O}_3$

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