F Ex 3

(17) Ni^0 $[Ar]$ $4s^2$ $3d^8$

$\uparrow\downarrow$ (4s) $\uparrow\downarrow\ \uparrow\downarrow\ \uparrow\downarrow\ \uparrow\ \uparrow$ (3d)

Lose 2e−

Lose from wfcs P.E.C.

Ni^{+2} $[Ar]$ $3d^8$

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$c = f\lambda$ $\left(\frac{1}{sec}\right)$ $\left(\frac{1}{sec}\right)$ (M) $3\times10^8\ m/sec$

$E = hf$ (J)

$\lambda = \frac{h}{mv}$ (m) mass (kg) m/sec

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

WATCH YOUR UNITS!

$1\ nM = 10^{-9}\ M$

$450\ nM = 450\times10^{-9}\ M$

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Max e⁻
$2n^2$ 2 $1s_2$

4 $2s_2 + 2p_6$

18 $3s_2 + 3p_6 + 3d_{10}$

32 $4s_2 + 4p_6 + 4d_{10} + 4f_{14}$

$J = Kg \cdot \frac{m^2}{sec^2}$

$KE = \frac{1}{2} m v^2$

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(1) (2) $C = f\lambda$ T

$E = hf$

$C = f\lambda$

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(22) isoelectric → same # of electrons

N^{-3} O^{-2} F^{-1} **Ne** Na^{+1} Mg^{+2} Al^{+3}

7+3 8+2 9+1 10 11-1 12-2 13-3

10 10 10 10 10 10

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(EC) $\frac{17.7\,kJ}{Mole\,S}$, — g , 22.5kJ

$$\frac{|1\,Mole\,S|\,32g\,S|\,22.5kJ|}{|17.7\,kJ|\,1\,Mole\,S|} = 40.68\,g\,S$$

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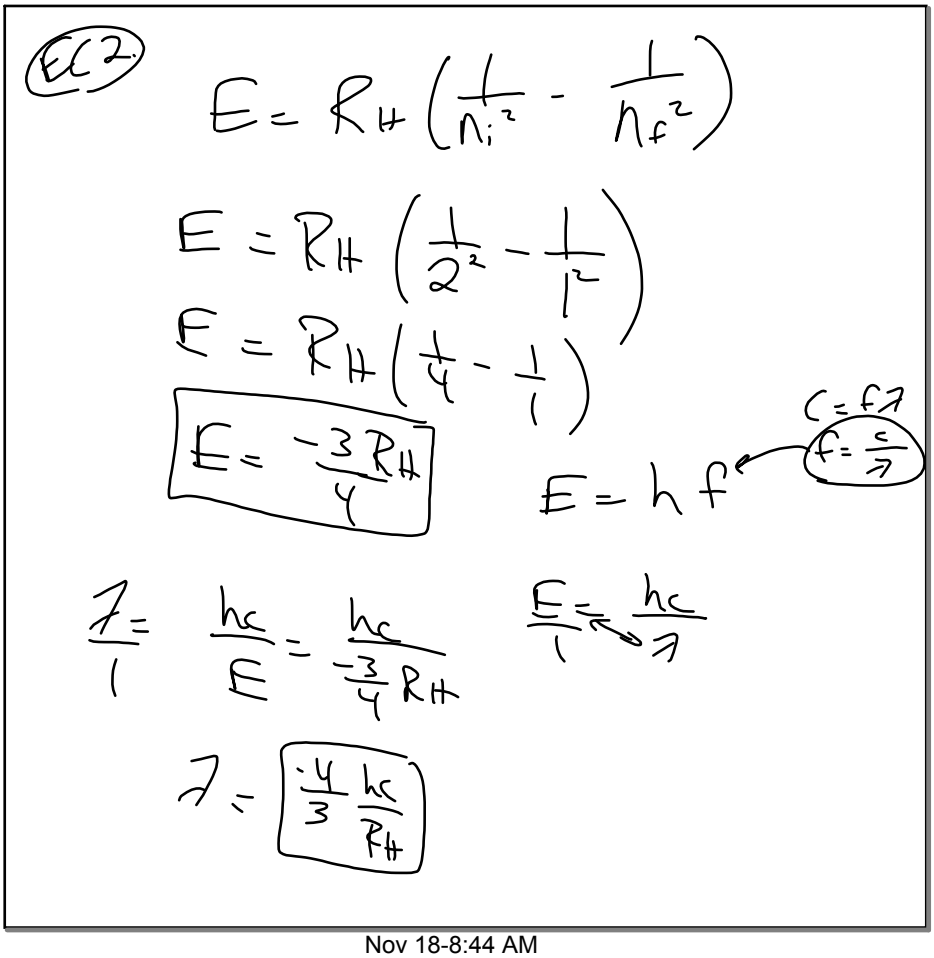
EC2
$E = R_H\left(\frac{1}{n_i^2} - \frac{1}{n_f^2}\right)$
$E = R_H\left(\frac{1}{2^2} - \frac{1}{1^2}\right)$
$E = R_H\left(\frac{1}{4} - \frac{1}{1}\right)$
$E = \frac{-3R_H}{4}$
$E = hf$
$c = f\lambda$
$f = \frac{c}{\lambda}$
$\frac{\lambda}{1} = \frac{hc}{E} = \frac{hc}{\frac{3}{4}R_H}$
$E = \frac{hc}{\lambda}$
$\lambda = \frac{4}{3}\frac{hc}{R_H}$

Nov 18-8:44 AM