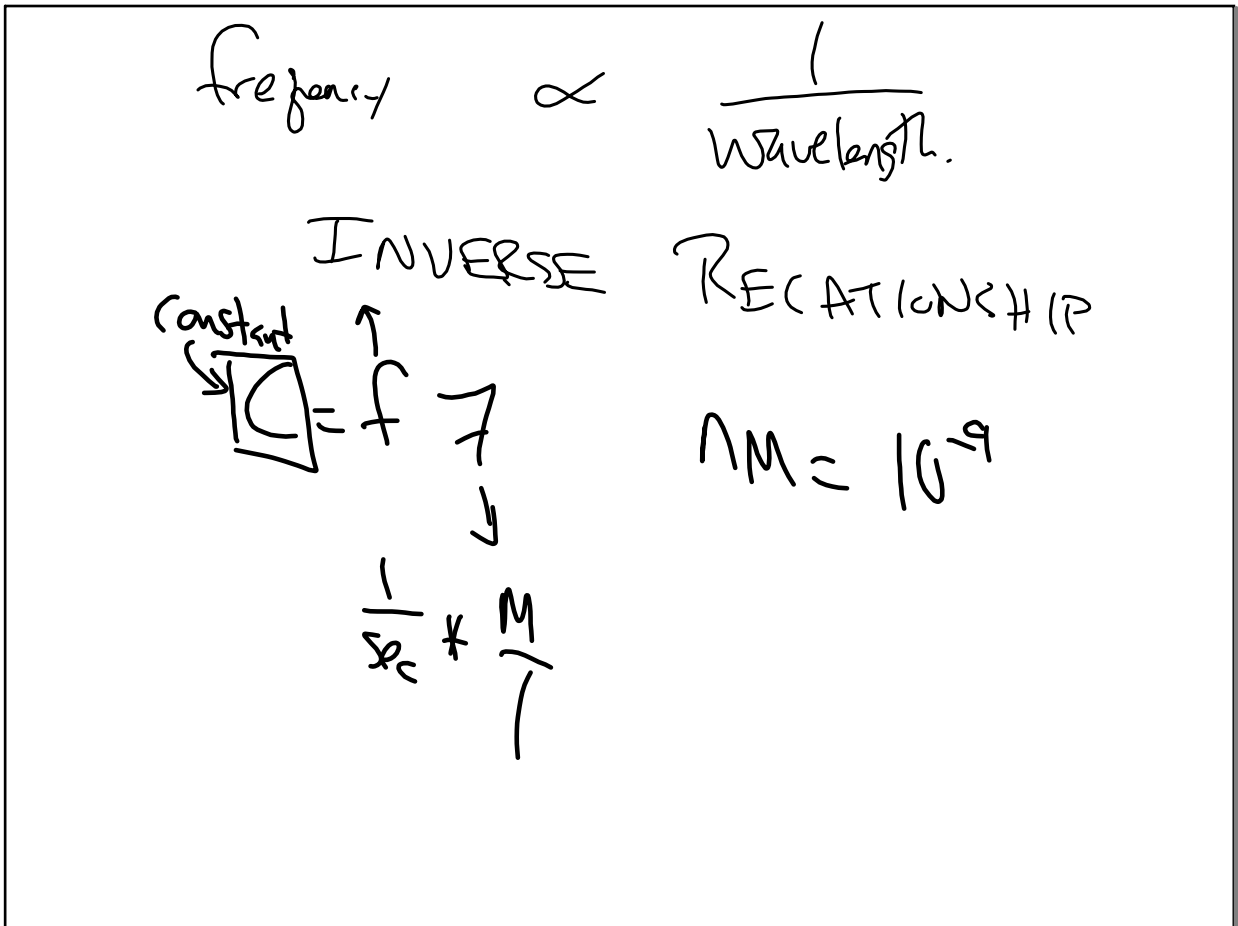


Oct 28-7:42 AM



Oct 28-7:53 AM

Blue 400nm $\xrightarrow[\text{f decr.}]{\lambda \text{ incr.}}$ RED 750nm

constant $f \nearrow$

Oct 28-7:54 AM

$E = hf$ (Planck's constant)

$E = mc^2$

DIRECT E and f

$f \propto \frac{1}{\lambda}$, $E \propto f$

HERTZ (Hz) = $\frac{1}{\text{sec}} = \text{sec}^{-1}$

$E \propto \frac{1}{\lambda}$ (As wavelength λ increases, energy E decreases)

Oct 28-8:00 AM

$E = h f$
 \downarrow
 $6.63 \times 10^{-34} \text{ J}\cdot\text{sec}$

$E = h f$
 $J = h \cdot \frac{1}{\text{sec}}$
 $h = J \cdot \text{sec}$
 $\frac{\text{kg}\cdot\text{m}^2}{\text{sec}^2} \cdot \text{sec}$

Oct 28-8:03 AM

Energy = Energy

$h f = m c^2$
 $\frac{h \cancel{v}}{f} = \frac{m v^2}{1}$
 $\lambda = \frac{h v}{m v^2} = \frac{h}{m v}$

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

Sub Velocity for "c"
 $\frac{v}{v}$

$\frac{f}{1} = \frac{h}{m v}$
 $\text{kg} \quad \text{m/sec}$

De Broglie Wavelength

Oct 28-8:07 AM

$c = f \lambda$

$E = hf$

$f = \frac{h}{m\lambda}$

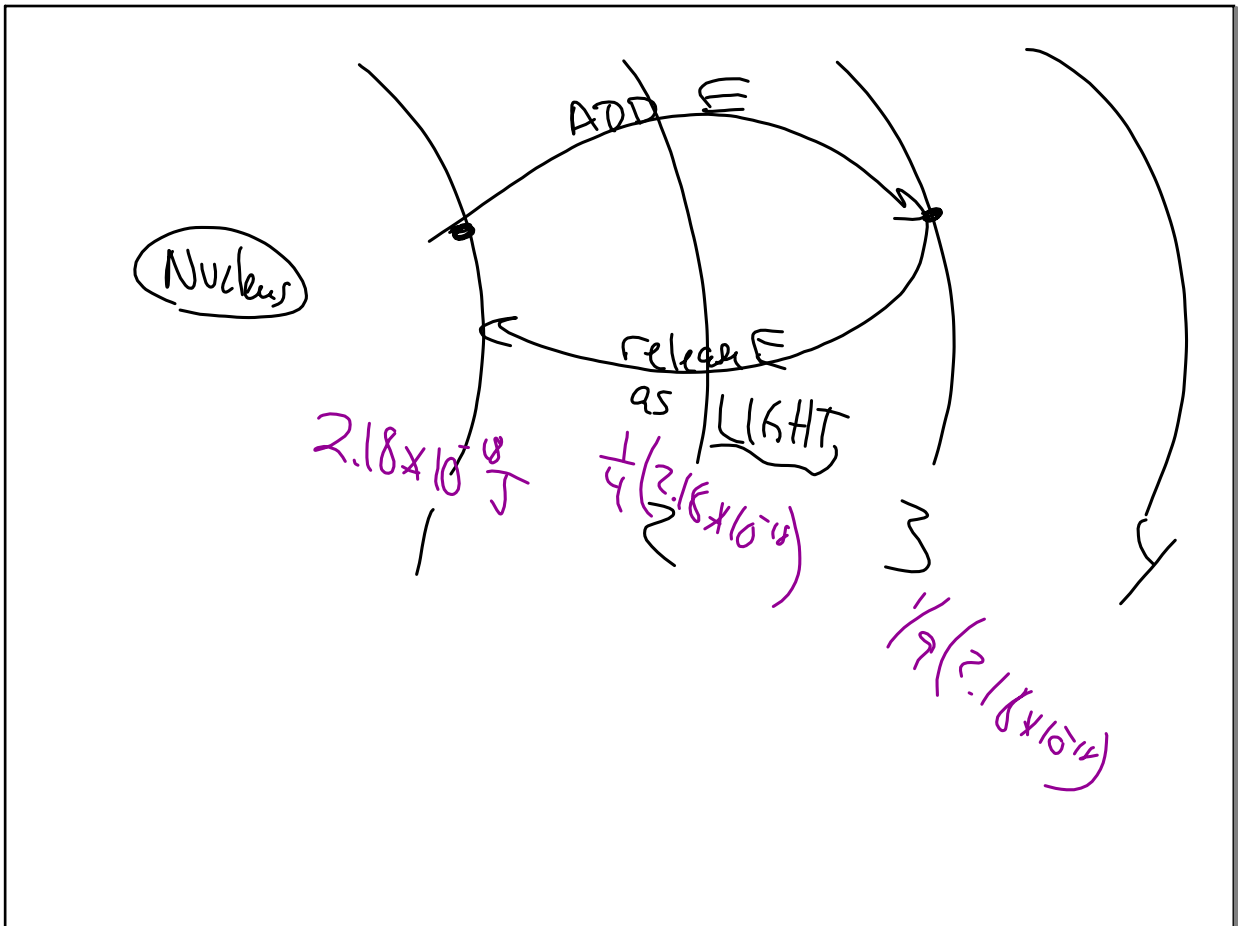
extensive

Energy

QUANTIZED

Amount.

Oct 28-8:13 AM



Oct 28-8:17 AM

$$E = R_H \left(\frac{1}{n^2} \right) \text{ AT A Level}$$

↓
 Rydberg constant
 $2.18 \times 10^{-18} \text{ J}$

↗ energy level

$$\Delta E = R_H \left(\frac{1}{n_i^2} - \frac{1}{n_f^2} \right) \text{ Between Levels.}$$

(initial) (final)

Oct 28-8:19 AM

HW
 6 / 36 + 41

Separation lab Mon ← Pre + Post Q's
 Spectum lab WED

Oct 28-8:25 AM