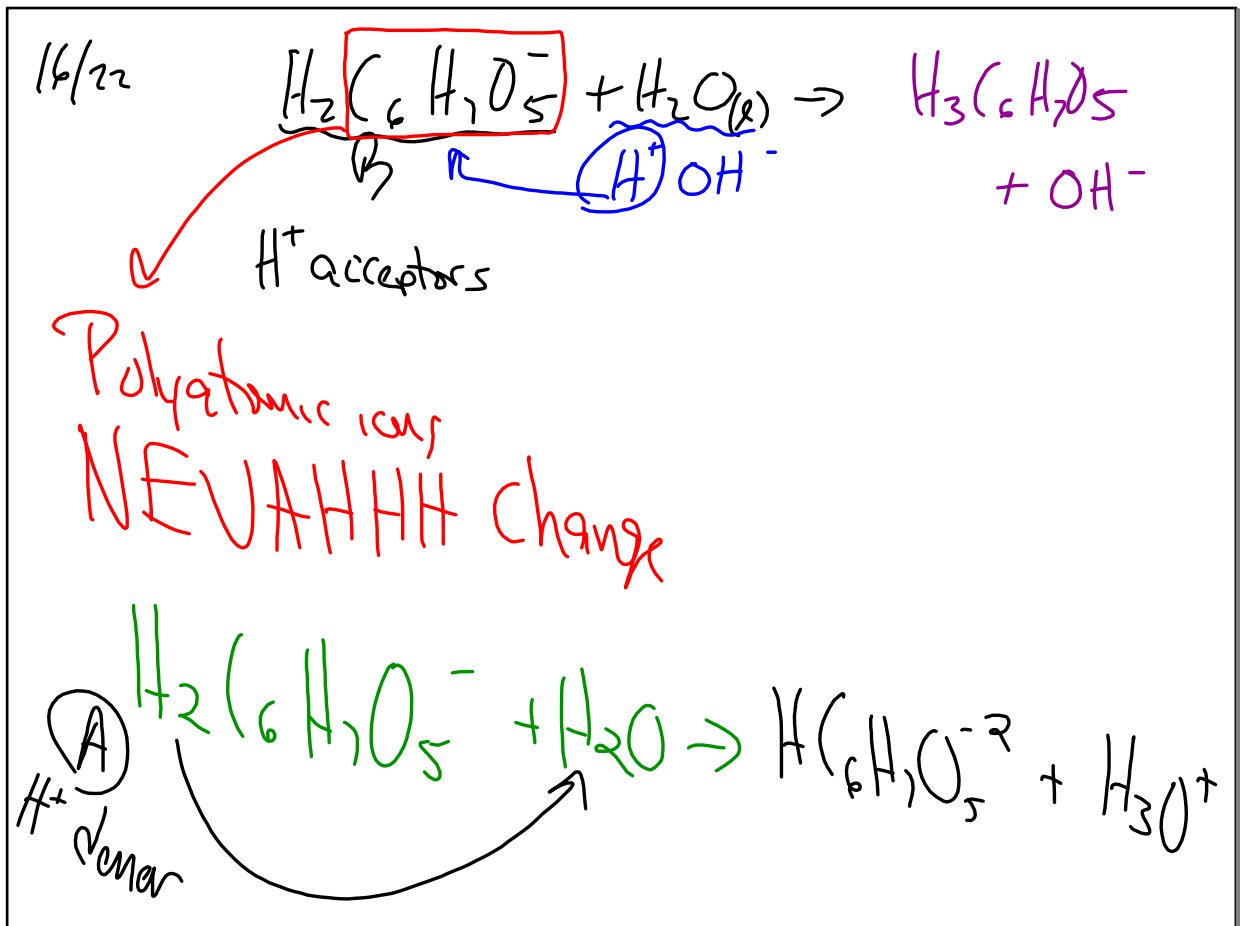
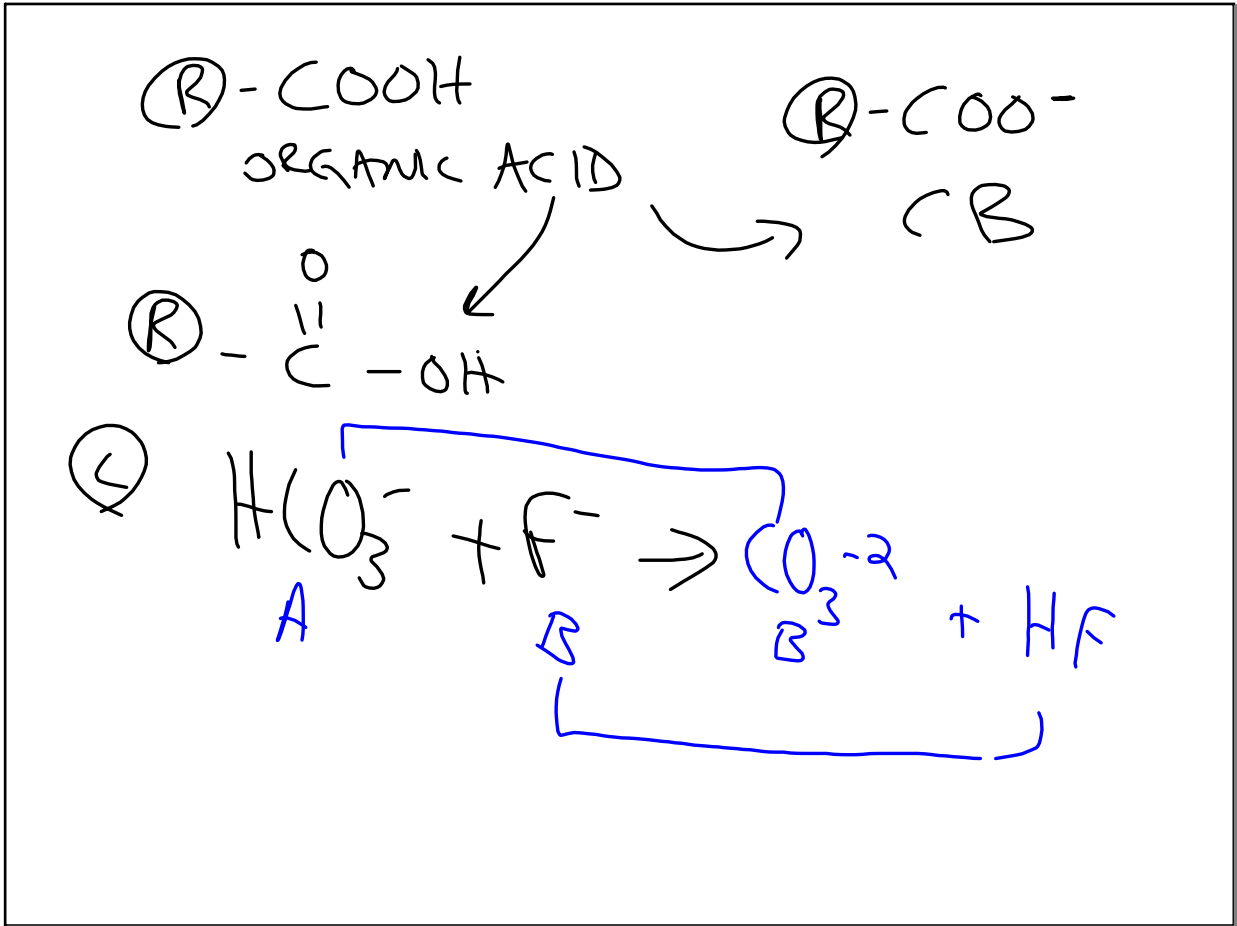


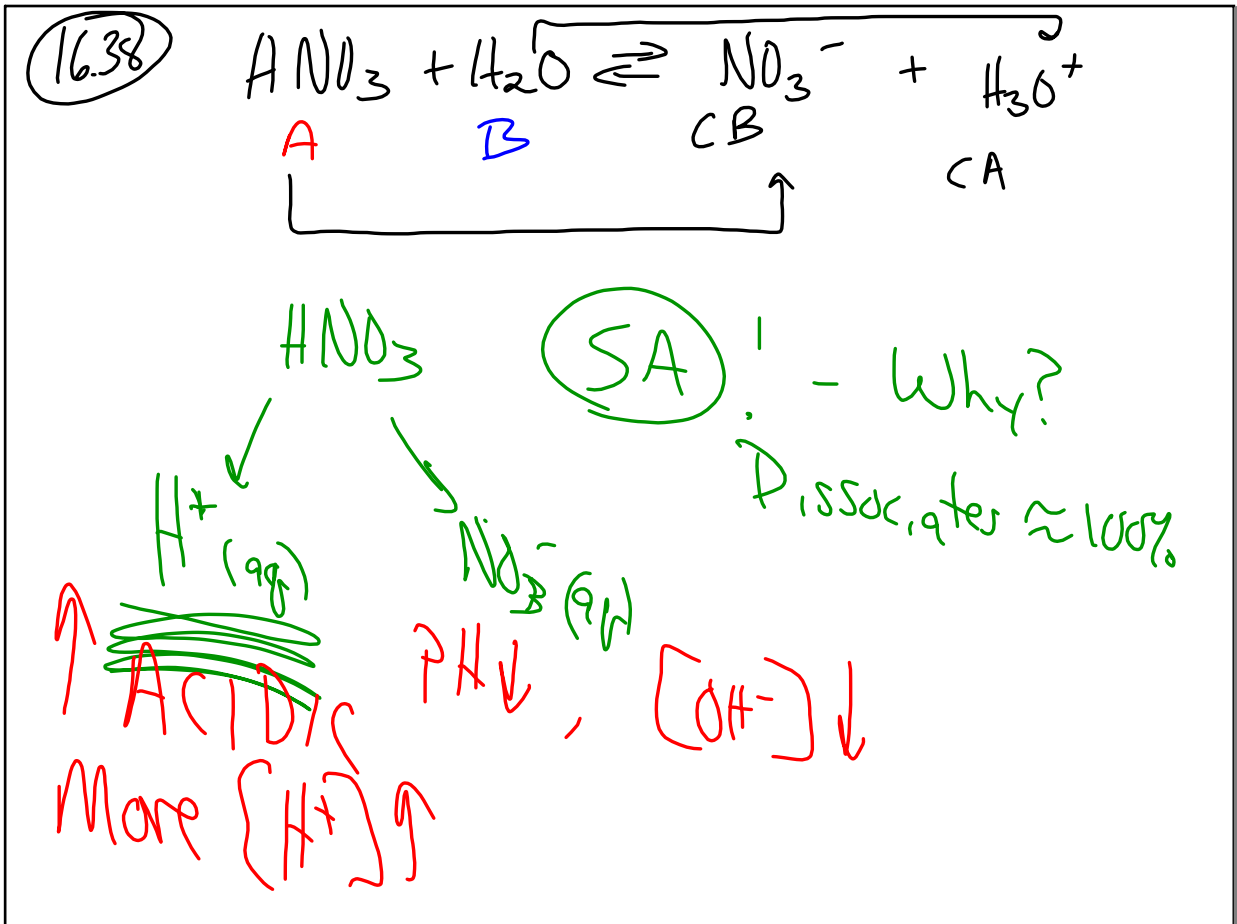
Feb 21-7:38 AM



Feb 21-7:56 AM



Feb 21-8:01 AM



Feb 21-8:04 AM

(16.38) $[OH^-] = 0.014M$ $(pH = ?)$
 $pOH = -\log [OH^-]$
 $pOH = -\log (0.014)$
 $- pOH = \log (0.014)$
 $pOH = 1.854$
 $pH = 12.146$ $pH + pOH = 14$

$pH = -\log [H^+]$
 $pOH = -\log [OH^-]$
 $pH + pOH = 14$
 $K_w = [H^+][OH^-] = 1 \times 10^{-14}$
 @ 25°C

Feb 21-8:10 AM

$pH = 6.6$ $[H^+] = 2.51 \times 10^{-7}$
 $[OH^-] = 4 \times 10^{-8}$

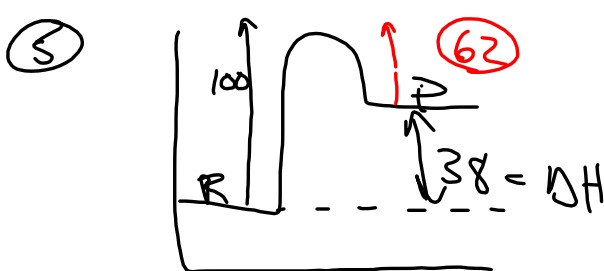
$pH = -\log [H^+]$
 $6.6 = -\log (H^+)$
 $\rightarrow -6.6 = \log (H^+)$
 $[H^+] = 2.51 \times 10^{-7}$

$[H^+][OH^-] = 1 \times 10^{-14}$
 $[OH^-] = \frac{1 \times 10^{-14}}{2.51 \times 10^{-7}}$

Feb 21-8:15 AM

Exqm 1

④ $t_{1/2} = \frac{0.693}{K} = \frac{0.693}{35 \text{ min}^{-1}} = 0.0198 \text{ min}$
 $\times 60$
 $\frac{1.188 \text{ sec}}$

⑤ 

Feb 21-8:40 AM

⑦ $\frac{1}{A_t} = Kt + \frac{1}{A_0}$

$\frac{1}{A_t} = (1.2 \times 10^{-2}) (1800) \text{ sec} + \frac{1}{0.045}$
↑
s.c

⑧ $t_{1/2} = \frac{1}{K(A_0)} = \frac{1}{(1.2 \times 10^{-2}) (0.3)} = 277.78 \text{ sec}$
 $\div 60$
 $\frac{4.63 \text{ min}}$

Feb 21-8:49 AM

⑬ $K = \frac{(Cl_4)(S_2Cl_2)}{(S_2)(Cl_2)^3} = \frac{(0.15)(0.35)}{(0.05)(0.25)^3} = \boxed{67.2 K}$

$Q < K$ \rightarrow $Q = K$ \rightleftharpoons $Q > K$

$Q = \frac{(0.3)(0.28)}{(0.15)(0.2)^2} = \boxed{70 Q}$

Feb 21-8:54 AM

⑭

	CS_2	$+ 3Cl_2$	\rightleftharpoons	S_2Cl_2	$+ Cl_4$
I	1	3		0	0
Δ	-	-0.75		+	+0.25
M		2.25 Mole			0.25

WTRM

Feb 21-9:00 AM

18
1 mole
252

$$\text{COCl}_2 \rightleftharpoons \text{CO} + \text{Cl}_2$$

I	0.04 M	0	0
Δ	-x	+x	+x
E	0.04-x M	x	x

$$K = \frac{(\text{CO})(\text{Cl}_2)}{(\text{COCl}_2)} = \frac{8.05 \times 10^{-4}}{1}$$

$$\frac{(x)(x)}{0.04-x} = \frac{8.05 \times 10^{-4}}{1}$$

$x = 0.0347$

Feb 21-9:03 AM

(FC1)

$$\text{Rate} = k[A][B]^2$$

*9 ← (3)²

Feb 21-9:07 AM

SA vs WA

SA dissociates ~100%

WA ~5% or less dissociation.

6M HCl

$$\text{HCl} \rightarrow \text{H}^+ + \text{Cl}^-$$

I	-26	0	0
C	+6	+6	-6
E	20	6	-6

H^+

$\text{pH} = -\log[\text{H}^+]$
 $\text{pH} = -0.78$
 $\text{pOH} = 14.78$

Feb 21-9:09 AM

WA → Need RICE Table

PLIS $K_a = 1.8 \times 10^{-5}$

$$\text{H}_2\text{C}_2\text{O}_4 \rightleftharpoons \text{H}^+ + \text{C}_2\text{H}_3\text{O}_4^-$$

I	2×10^{-2}	0	0
C	-x	+x	+x
E	2-x	x	x

$$\frac{(x)(x)}{2-x} = \frac{1.8 \times 10^{-5}}{1}$$

3 decimal places on new part

FIGURE

Feb 21-9:12 AM

$$16 / 39 + 60$$

Feb 21-9:17 AM