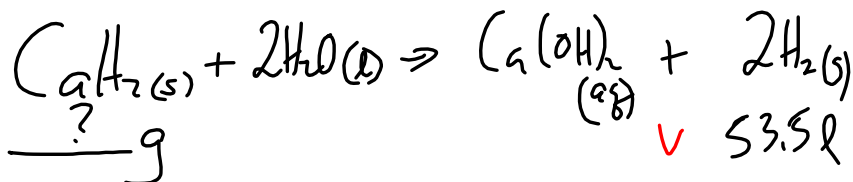


KMT  
mean free path.

effusion + diffusion

Dec 8-8:29 AM

10.54



V 53.5 L

P 814 torr

T 21°C

$PV = nRT$

mole H <sub>2</sub>	1 mole C <sub>6</sub> H <sub>6</sub>	42g C <sub>6</sub> H <sub>6</sub>
	2 mole H <sub>2</sub>	1 mole C <sub>6</sub> H <sub>6</sub>

Dec 8-8:56 AM

(18.58)  $\text{CaC}_2(s) + 2\text{H}_2\text{O}(l) \rightarrow \text{Ca(OH)}_2(s) + \text{C}_2\text{H}_2(g)$

0.752g CaC <sub>2</sub>	1 mole CaC <sub>2</sub>
64g CaC <sub>2</sub>	1 mole CaC <sub>2</sub>

0.012 mole CaC<sub>2</sub>

$PV = nRT$   
 $(0.95)V = (0.0582 \text{ mol})(RT)$   
 $V = 0.3 \text{ L}$

$23^\circ\text{C} \rightarrow 296\text{K}$   
 $\text{H}_2\text{O} = 21.07 \text{ torr}$   
 $P_T = 745 \text{ torr}$   
 $P_T = P_{\text{H}_2\text{O}} + P_{\text{C}_2\text{H}_2}$   
 $745 = 21.07 + P_{\text{C}_2\text{H}_2}$   
 $P_{\text{C}_2\text{H}_2} = 723.93 \text{ torr}$   
 $P_{\text{C}_2\text{H}_2} = 0.959 \text{ atm}$

Dec 8-9:01 AM

$\frac{PV}{RT}$

$P$

$PV = nRT$  moles won't close together

Dec 8-9:14 AM