

F16 ⑧ $C_xH_yO_z + O_2 \rightarrow CO_2 + H_2O$

$\frac{5.19g}{110.1g/mole}$ $X = \text{mole C}$
 $Y = \text{mole H}$
 $Z = \text{mole O}$

$\frac{12.4g CO_2}{44g CO_2}$	$\frac{1 \text{ mole } CO_2}{1 \text{ mole } C}$	$= \frac{0.28 \text{ mole } C}{0.097} = X$
$\frac{2.55g H_2O}{18g H_2O}$	$\frac{2 \text{ mole } H}{1 \text{ mole } H_2O}$	$= \frac{0.28 \text{ mole } H}{0.097} = Y$
$\frac{1.55g O}{16g O}$	$\frac{1 \text{ mole } O}{1 \text{ mole } O}$	$= \frac{0.097 \text{ mole } O}{0.097} = Z$

5.19g C+H+O
 3.36g C
 0.28g H
 1.55g O

$C_3H_3O_1$
 \downarrow
 $C_6H_6O_2$

n.w. = 55g/mole
 $\frac{X \quad Z}{110}$

Jan 16-8:03 AM

⑪ $P^{\circ}_{\text{desire}} = 250 \text{ mmHg} @ 120^{\circ}$

$UP_{\text{soln}} = ?$

$0.97 \text{ mole } C_{10}H_{16}O + \frac{1000g C_{10}H_{16}O}{142}$

$X = \frac{7.04}{7.04 + 0.97}$

$UP_{\text{soln}} = X_{\text{solvent}} P^{\circ}_{\text{pure solvent}}$

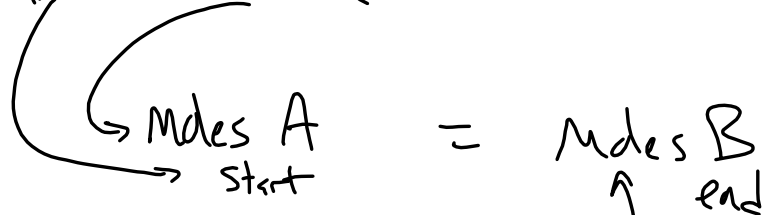
$UP_{\text{soln}} = \frac{7.04}{7.04 + 0.97} (250)$

$= 219.8 \text{ torr}$

Jan 16-8:59 AM

(12)

Dilution + Titrate

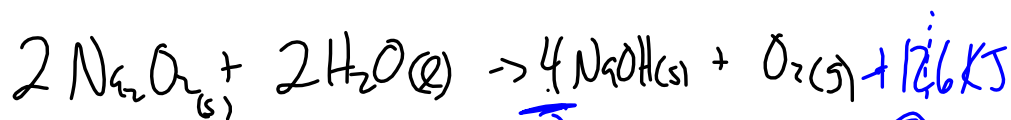


$$n_A * M * \cancel{V} = n_B * \cancel{M * V}$$

$$(1) (0.25) \cancel{l} = (1) \left(\frac{17.5}{40} \right) \frac{g}{\cancel{40} \text{ mol}}, 1.75 \cancel{g}$$

Jan 16-9:03 AM

(13)



2 63

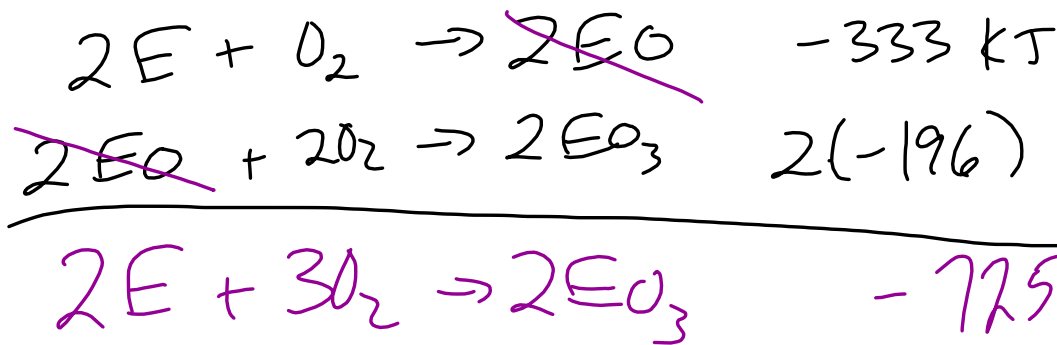
Jan 16-9:06 AM

(14) 1.96g Ti, ~~9.84 kJ~~, $\boxed{36.84 \rightarrow 98.82}$
 $\Delta T = \cancel{61.98^\circ\text{C}}$

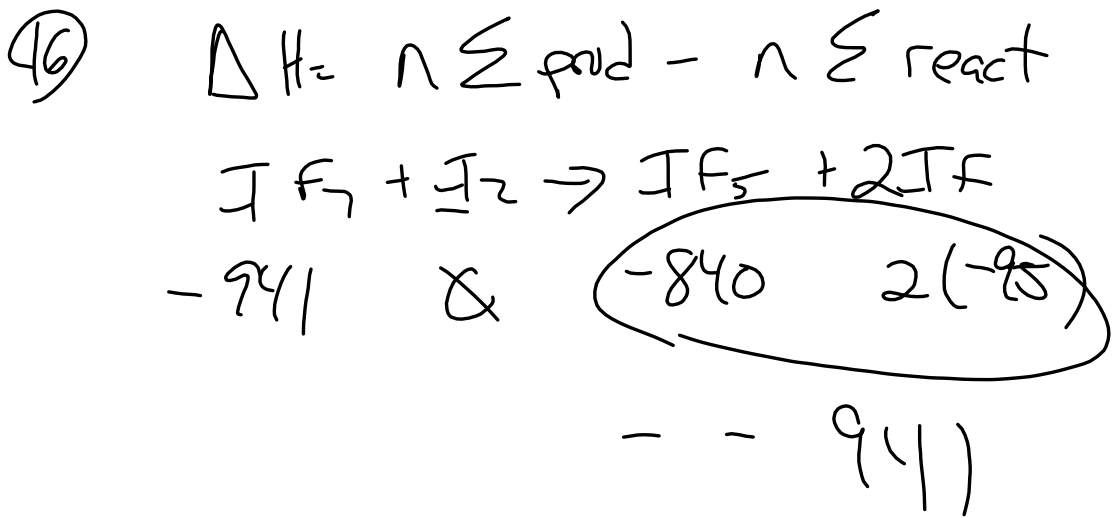
Find KJ
Mole Ti

9.84 kJ	61.98	48g Ti	1 mole Ti
1.96g Ti			

Jan 16-9:08 AM



Jan 16-9:12 AM



Jan 16-9:13 AM

⑦ $\frac{0.95}{900}$, $\frac{0.5 \text{ kg}}{500}$, 250°C

~~$\frac{0.95}{900}$ | $\frac{0.5 \text{ kg}}{500}$ | 250°C~~

250°C

ΔT

0.556°C

25.1°C

Jan 16-9:16 AM