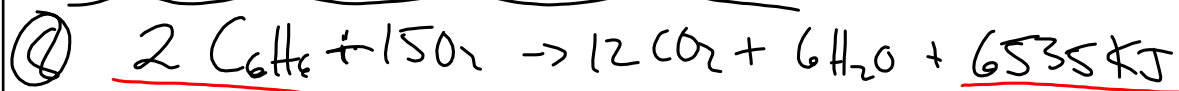


$$J = \frac{\text{kg} \cdot \text{m}^2}{\text{sec}^2}$$



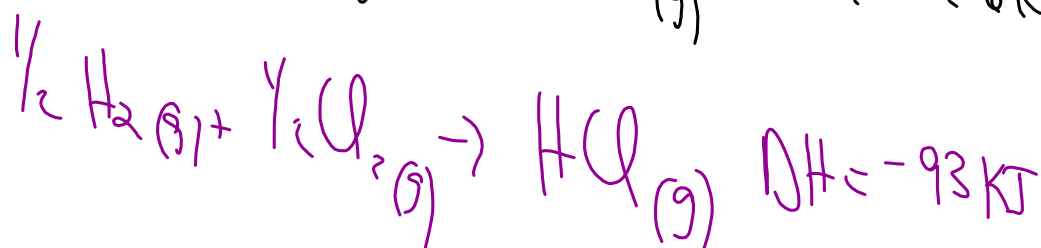
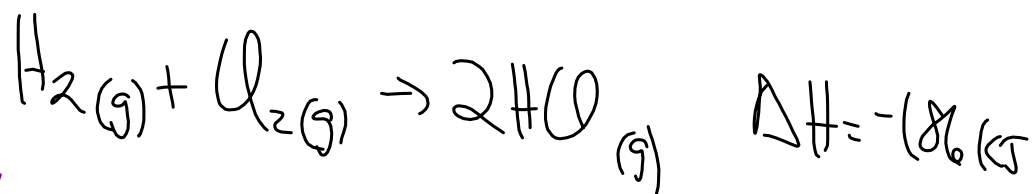
<del>16g C<sub>6</sub>H<sub>6</sub></del>	<del>1 Mole C<sub>6</sub>H<sub>6</sub></del>	6535 kJ
	78g C <sub>6</sub> H <sub>6</sub>	<del>2 Mole C<sub>6</sub>H<sub>6</sub></del>

Oct 18-8:42 AM

Std Conditions  
 25°C  
 1 atm

①  $\Delta H_f^\circ = \text{Heat of formation}$

Form 1 mole of product from its elements.



Oct 18-8:53 AM



$$\begin{aligned} \Delta H &= [\Delta H \text{IF}_7] - [\Delta H \text{IF}_5 + \Delta H \text{F}_2] \\ &= (-941) + (+840 + \cancel{0}) \\ &= -101 \text{ kJ} \end{aligned}$$

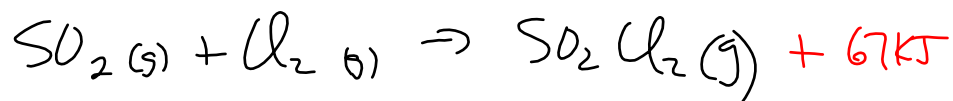
Oct 18-9:03 AM



$$\begin{aligned} \Delta H_{\text{rxn}} &= (\Delta H \text{IF}_3) - (\Delta H \text{IF} + \Delta H \text{F}_2) \\ -390 &= (\Delta H \text{IF}_3) + (+95 + \cancel{0}) \\ &\quad \underline{-95} \\ &= -485 \text{ kJ} \end{aligned}$$

Oct 18-9:06 AM

(21) 7.5 g SO<sub>2</sub> — 67 kJ



$$\begin{aligned} \Delta H_{\text{rxn}} &= (\Delta H_{\text{SO}_2\text{Cl}_2}) - (\Delta H_{\text{SO}_2} + \Delta H_{\text{Cl}_2}) \\ &= (-364) + (+297 - 0) \\ &= -67\text{kJ} \end{aligned}$$

<del>7.5 g SO<sub>2</sub></del>	<del>1 mole SO<sub>2</sub></del>	67 kJ
	64 g SO <sub>2</sub>	<del>1 mole SO<sub>2</sub></del>

Oct 18-9:08 AM

Oct 18-9:13 AM