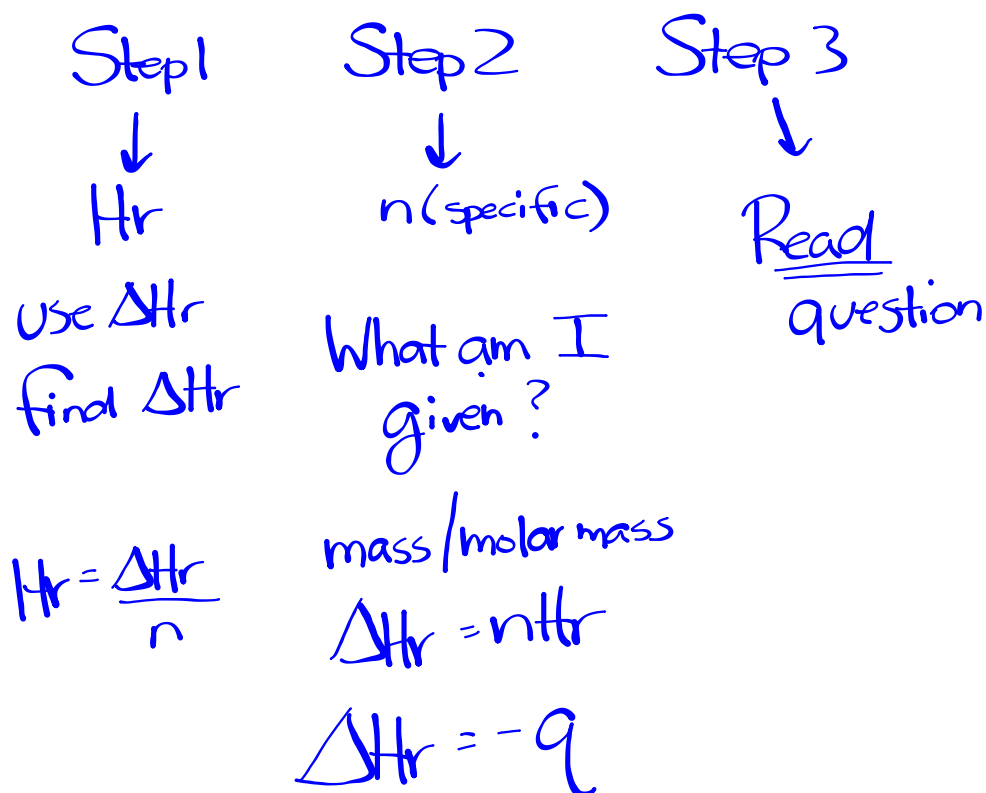
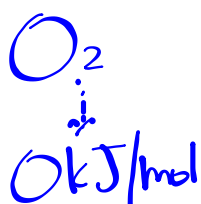


# Reaction Enthalpies

- Communicating Enthalpy Changes ( $\Delta H_r$  notation, balanced equation, potential energy diagrams)
- Hess's Law
- Enthalpy Changes using Formation Reactions
- Reference Energy State
- Thermal Stability
- Multi-Step Energy Calculations



$$\Delta H_r = \sum n H_{f,p} - \sum n H_{f,r}$$



$$\Delta H_r = n H_f$$



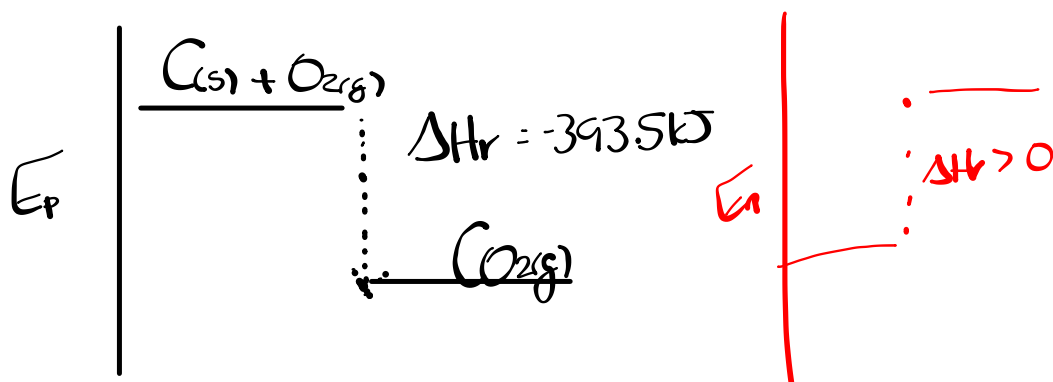
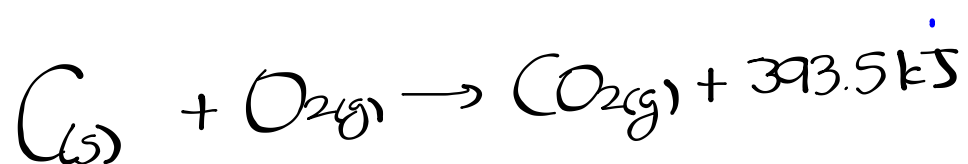
$$H_{\text{sp}} = 280.7 \frac{\text{kJ}}{\text{mol}}$$

$$H_{\text{f}} = -280.7 \frac{\text{kJ}}{\text{mol}}$$



$$H_{\text{sp}} = 577.6 \frac{\text{kJ}}{\text{mol}}$$

$$H_{\text{f}} = -577.6 \frac{\text{kJ}}{\text{mol}}$$



# Review Worksheet