

Ch. 10 Review sheet 4

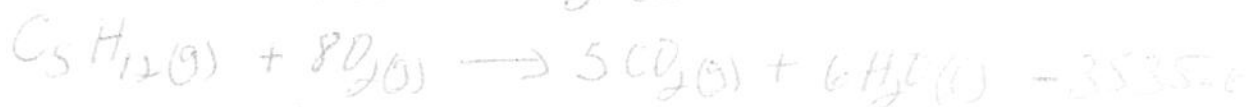
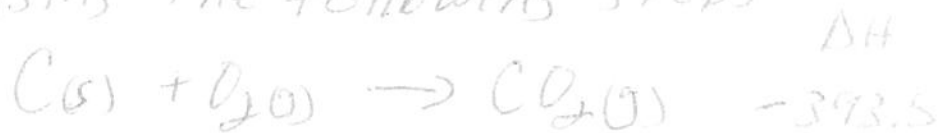
Know how to solve for

ΔH_{rxn} , ΔS_{rxn} , ΔG , $Q = mc\Delta T$, $q = nC\Delta T$

$mC\Delta T = nC\Delta T$ (see the board for how to do #21 from the worksheet) right side board

Calculate ΔH_{rxn} for the following reaction

* $5C(s) + 6H_2(g) \rightarrow C_5H_{12}$ (This is a ΔH_{rxn} using the following steps



Solution is on the Board left side

You must know 1st, 2nd, & 3rd law of thermodynamics

Define & know the following

Exothermic, Endothermic, Sublimation, heat temperature, Condensation, evaporation, deposit Entropy, Enthalpy, Gibbs Free Energy, Specific heat, Molar heat capacity.

I will give you a chart for ΔH , S , & spontaneity.

Characteristics for spontaneity = $-\Delta G$, $+\Delta S$, $-T\Delta S$

$$C_{H_2O} = 4.18 \frac{J}{g \cdot ^\circ C}$$

$-\Delta H =$ exothermic

$-\Delta S =$ decrease in entropy

$+\Delta H =$ endothermic

$+\Delta S =$ increase in entropy

$\Delta T = (T_f - T_i)$ gaining

$\Delta T = (T_i - T_f)$ losing