

HW 9-5: pg. 381 #69, 72, 88 (HINT: You are solving for the ΔH for the formation of CH_4 . The formation of CH_4 is $\text{C} + 2 \text{H}_2 \rightarrow \text{CH}_4$), 89; Extra Problem

69 $\Delta H^\circ(\text{N-H}) = 392 \text{ kJ/mol}$

72 (a) $\Delta H^\circ = -2759 \text{ kJ/mol}$

 (b) $\Delta H^\circ = -2855 \text{ kJ/mol}$

88 $\Delta H_f^\circ(\text{CH}_4) = -67 \text{ kJ/mol}$

89 (a) $\Delta H_{rxn}^\circ = 76 \text{ kJ/mol}$

 (b) $\Delta H_{rxn}^\circ = -18 \text{ kJ/mol}$

Extra Problem: $D_{\text{C-F}} = 481 \text{ kJ/mol}$