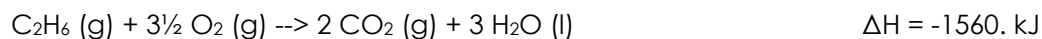
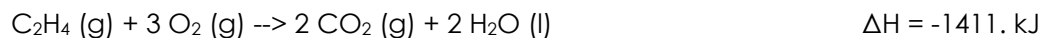
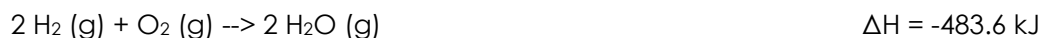


Hess's Law Worksheet

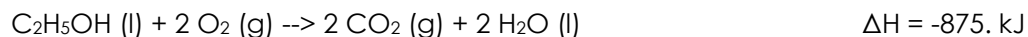
1. Calculate ΔH for the reaction: $\text{C}_2\text{H}_4(\text{g}) + \text{H}_2(\text{g}) \rightarrow \text{C}_2\text{H}_6(\text{g})$, from the following data.



2. Calculate ΔH for the reaction $4\text{NH}_3(\text{g}) + 5\text{O}_2(\text{g}) \rightarrow 4\text{NO}(\text{g}) + 6\text{H}_2\text{O}(\text{g})$, from the following data.



3. Find ΔH° for the reaction $2\text{H}_2(\text{g}) + 2\text{C}(\text{s}) + \text{O}_2(\text{g}) \rightarrow \text{C}_2\text{H}_5\text{OH}(\text{l})$, using the following thermochemical data.



4. Calculate ΔH for the reaction $\text{CH}_4(\text{g}) + \text{NH}_3(\text{g}) \rightarrow \text{HCN}(\text{g}) + 3\text{H}_2(\text{g})$, given:



5. Calculate ΔH for the reaction $2\text{Al}(\text{s}) + 3\text{Cl}_2(\text{g}) \rightarrow 2\text{AlCl}_3(\text{s})$ from the data.

