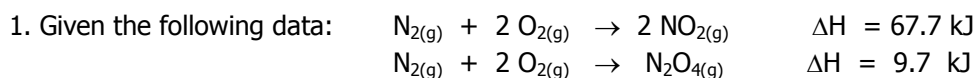
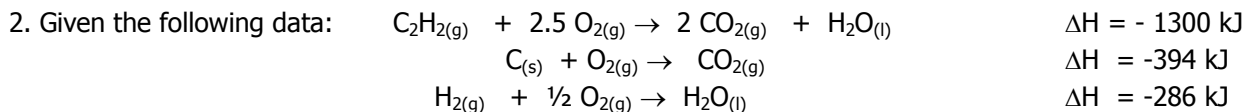
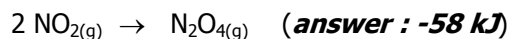


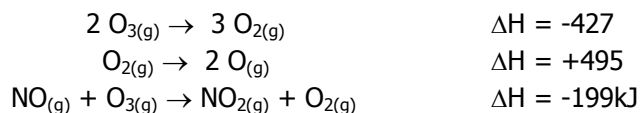
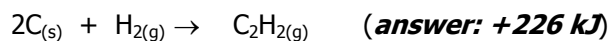
Thermochemistry - Hess's Law Problems



Calculate the ΔH for the dimerization of NO_2 :

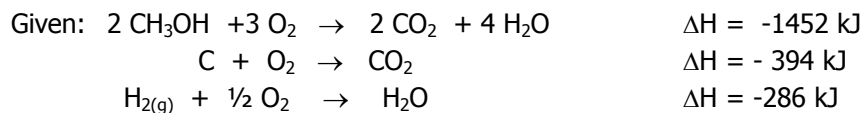
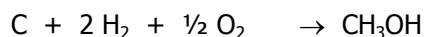


calculate ΔH for the reaction



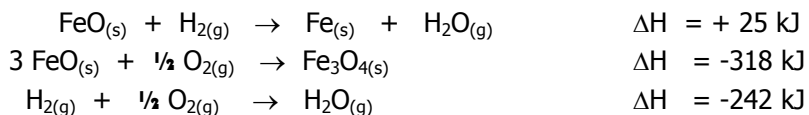
calculate ΔH for the reaction $\text{NO}_{(\text{g})} + \text{O}_{(\text{g})} \rightarrow \text{NO}_{2(\text{g})}$

4. The formation reaction showing how methanol, CH_3OH , is as follows:

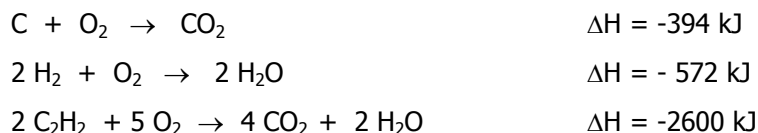


Calculate the ΔH for the formation of methanol.

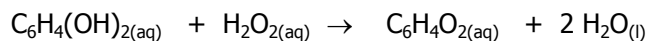
5. (a) Calculate the value of ΔH for the reaction: $3 \text{Fe}_{(s)} + 4 \text{H}_2\text{O}_{(g)} \rightarrow \text{Fe}_3\text{O}_{4(s)} + 4 \text{H}_{2(g)}$ using the given information below.



6. Using the information below calculate the ΔH for the reaction : $\text{C}_2\text{H}_2 \rightarrow 2 \text{C} + \text{H}_2$



7. The bombardier beetle uses an explosive discharge as a defensive measure. The chemical reaction involved is the oxidation of hydroquinone by hydrogen peroxide to produce quinone and water:



Calculate ΔH for this reaction from the following data: (**answer : -202.6 kJ**)

