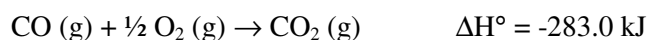
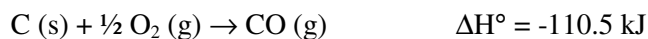


Hess's Law

Chem Worksheet 16-5

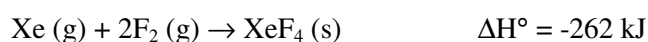
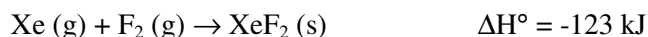
Name _____

1. From the following enthalpy changes,



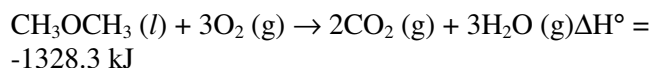
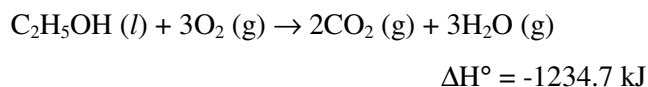
calculate the value of ΔH° for the reaction $\text{C(s)} + \text{O}_2 \text{ (g)} \rightarrow \text{CO}_2 \text{ (g)}$.

2. From the following enthalpy changes,



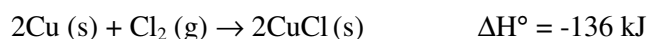
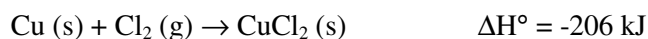
calculate the value of ΔH° for the reaction $\text{XeF}_2 \text{ (s)} + \text{F}_2 \text{ (g)} \rightarrow \text{XeF}_4 \text{ (s)}$.

3. From the following enthalpy changes,



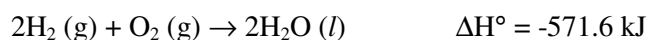
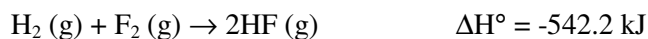
calculate the value of ΔH° for the reaction $\text{C}_2\text{H}_5\text{OH (l)} \rightarrow \text{CH}_3\text{OCH}_3 \text{ (l)}$.

4. From the following enthalpy changes,



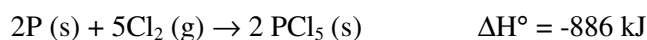
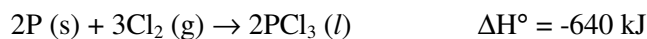
calculate the value of ΔH° for the reaction $\text{CuCl}_2 \text{ (s)} + \text{Cu (s)} \rightarrow 2\text{CuCl (s)}$.

5. From the following enthalpy changes,



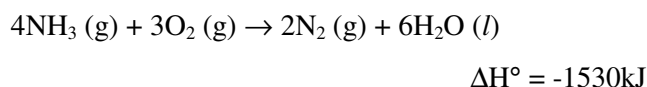
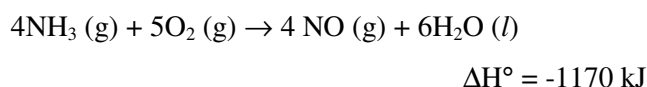
calculate the value of ΔH° for the reaction $2\text{F}_2 \text{ (g)} + 2\text{H}_2\text{O (l)} \rightarrow 4\text{HF (g)} + \text{O}_2 \text{ (g)}$

6. From the following enthalpy changes,



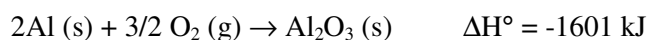
calculate the value of ΔH° for the reaction $\text{PCl}_3 \text{ (l)} + \text{Cl}_2 \text{ (g)} \rightarrow \text{PCl}_5 \text{ (s)}$.

7. From the following enthalpy changes,



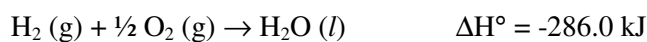
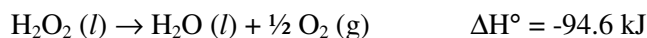
calculate the value of ΔH° for the reaction $\text{N}_2 \text{ (g)} + \text{O}_2 \text{ (g)} \rightarrow 2\text{NO (g)}$.

8. From the following enthalpy changes,



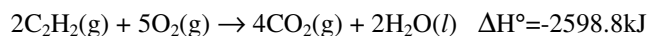
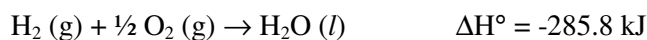
calculate the value of ΔH° for the reaction $2\text{Al(s)} + \text{Fe}_2\text{O}_3\text{(s)} \rightarrow 2\text{Fe(s)} + \text{Al}_2\text{O}_3\text{(s)}$.

9. From the following enthalpy changes,



calculate the value of ΔH° for the reaction $\text{H}_2 \text{ (g)} + \text{H}_2\text{O}_2 \text{ (l)} \rightarrow 2\text{H}_2\text{O (l)}$.

10. From the following enthalpy changes,



calculate the value of ΔH° for the reaction $2\text{C(s)} + \text{H}_2 \text{ (g)} \rightarrow \text{C}_2\text{H}_2 \text{ (g)}$.