

Thermochemical equations and Hess Law

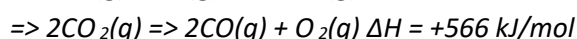
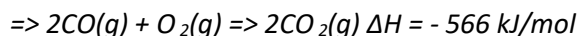
Lesson 2a

Read before attempting these questions.

A few rules apply to manipulating balanced thermochemical equations

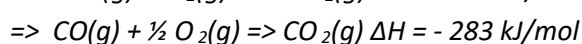
1) When reversing an equation change the sign of the ΔH

For example



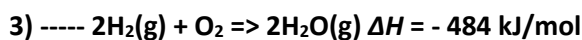
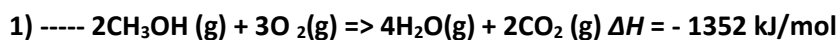
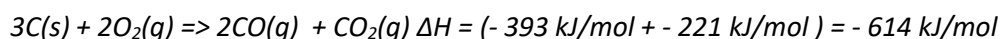
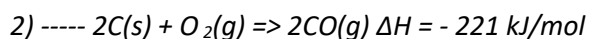
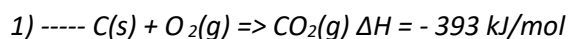
2) When multiplying the equation also multiply the ΔH

For example

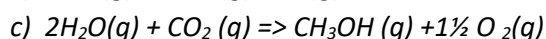
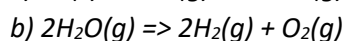
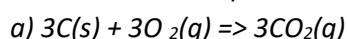


3) When adding equations also add the ΔH

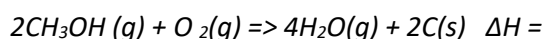
For example



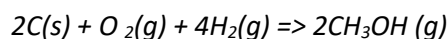
1) Consider the thermochemical equations shown above. Calculate the ΔH of the following thermochemical equations.



d) Find the ΔH of the thermochemical equation below



e) Find the ΔH of the thermochemical equation below



2) Given the equations below find the ΔH of $\text{C}(s) + \text{O}_2(g) \rightarrow \text{CO}_2(g)$

