

LO: Students will be able to use Hess's law to determine heat of reactions.

DOL: Students will successfully answer at least 4/5 Hess's Law questions.

The heat of a reaction can often be calculated using the heats of formation of the reactants as compared to those of the products.

If the total enthalpy of the reactants is greater than that of the products, the reaction is exothermic.

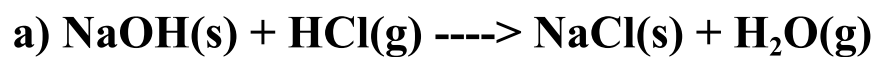
If the total enthalpy of the products is greater than that of the reactants, the reaction is endothermic.

DO NOT write this table down

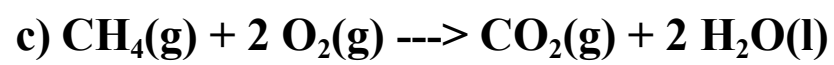
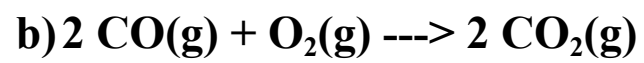
CO = -110.5

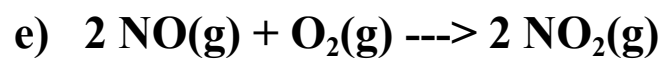
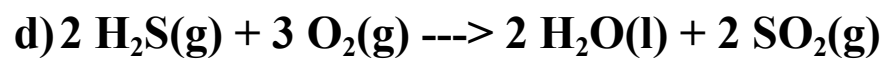
CH₄(g)	-74.8	HCl(g)	-92.3
CO₂(g)	-393.5	H₂O(g)	-241.8
NaCl(s)	-411.0	SO₂(g)	-296.1
H₂O(l)	-285.8	NH₄Cl(s)	-315.4
H₂S(g)	-20.1	NO(g)	+90.4
H₂SO₄(l)	-811.3	NO₂(g)	+33.9
MgSO₄(s)	-1278.2	SnCl₄(l)	-545.2
MnO(s)	-384.9	SnO(s)	-286.2
MnO₂(s)	-519.7	SnO₂(s)	-580.7
NaCl(s)	-411.0	SO₂(g)	-296.1
NaF(s)	-569.0	SO₃(g)	-395.2
NaOH(s)	-426.7	ZnO(s)	-348.0
NH₃(g)	-46.2	ZnS(s)	-202.9

May 5-1:48 PM



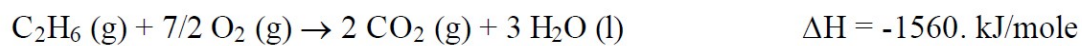
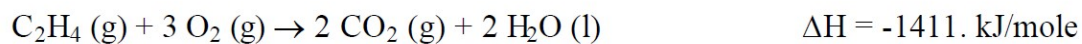
May 5-1:39 PM



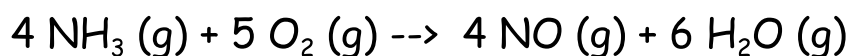


Hess's Law Practice:

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.



Calculate H for the reaction



from the following data.

