

## State Functions

↳ path independent

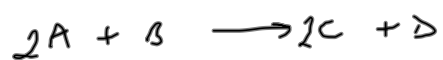
Heat is often a state function

except → electrical work

→ variable Pressure

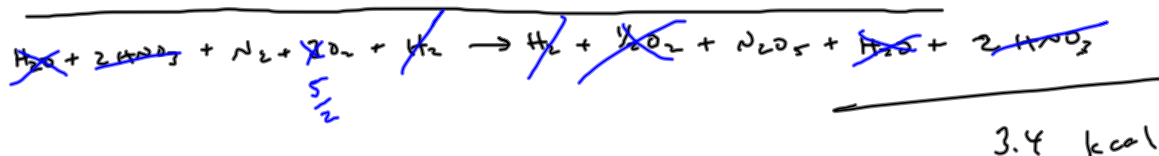
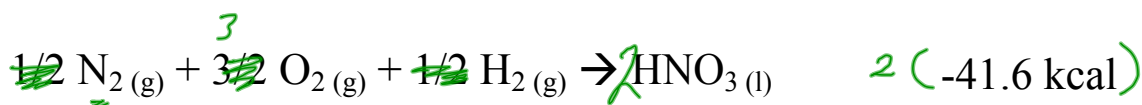
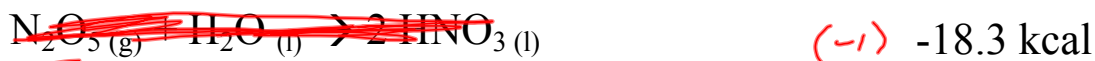
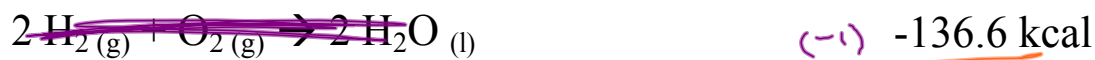
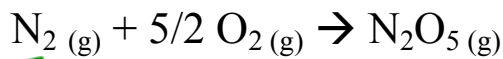
$q = \text{heat}$   
(all the time)

path indep. heat =  $\Delta H$  ← enthalpy

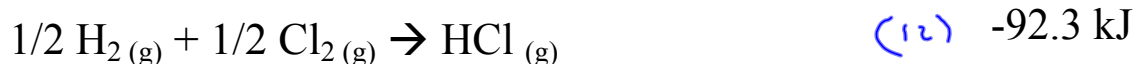
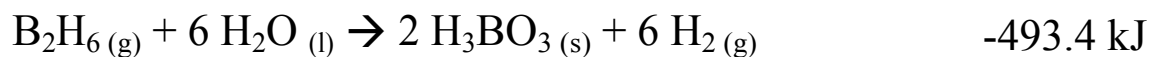
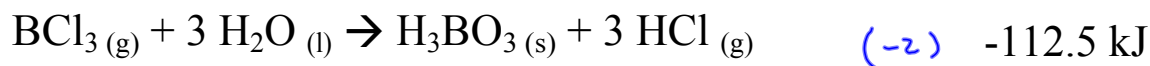
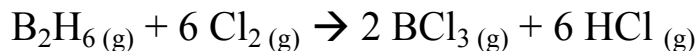


Hess' Law

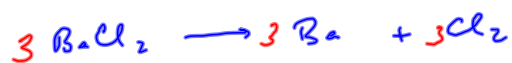
Use the information below to determine the  $\Delta H_{\text{rxn}}$  for the reaction



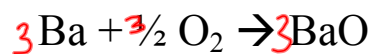
Use the information below to determine the  $\Delta H_{\text{rxn}}$  for the reaction



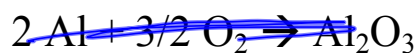
$$-1376 \text{ kJ}$$



$$3 (-1) \Delta H_1$$



$$(3) \Delta H_2$$



$$(-1) \Delta H_3$$



$$(2) \Delta H_4$$

↑ formation  
rxns