



THERMODYNAMICS (B)

1 The enthalpy of solution of magnesium chloride is -155 kJ mol^{-1} . The hydration enthalpies of magnesium and chloride ions are -1920 and -364 kJ mol^{-1} respectively. Calculate the lattice enthalpy of formation of magnesium chloride.

2 Write a chemical equation that represents each of the following enthalpy changes.

a enthalpy of combustion of Na(s)

b enthalpy of formation of $\text{AlBr}_3(\text{s})$

c enthalpy of atomisation of $\text{I}_2(\text{s})$

d lattice enthalpy of formation of $\text{AlBr}_3(\text{s})$

e lattice enthalpy of dissociation of $\text{K}_2\text{O}(\text{s})$

f bond dissociation enthalpy for C=O in CO_2

g 3^{rd} ionisation enthalpy of gallium

h 1^{st} electron affinity of bromine