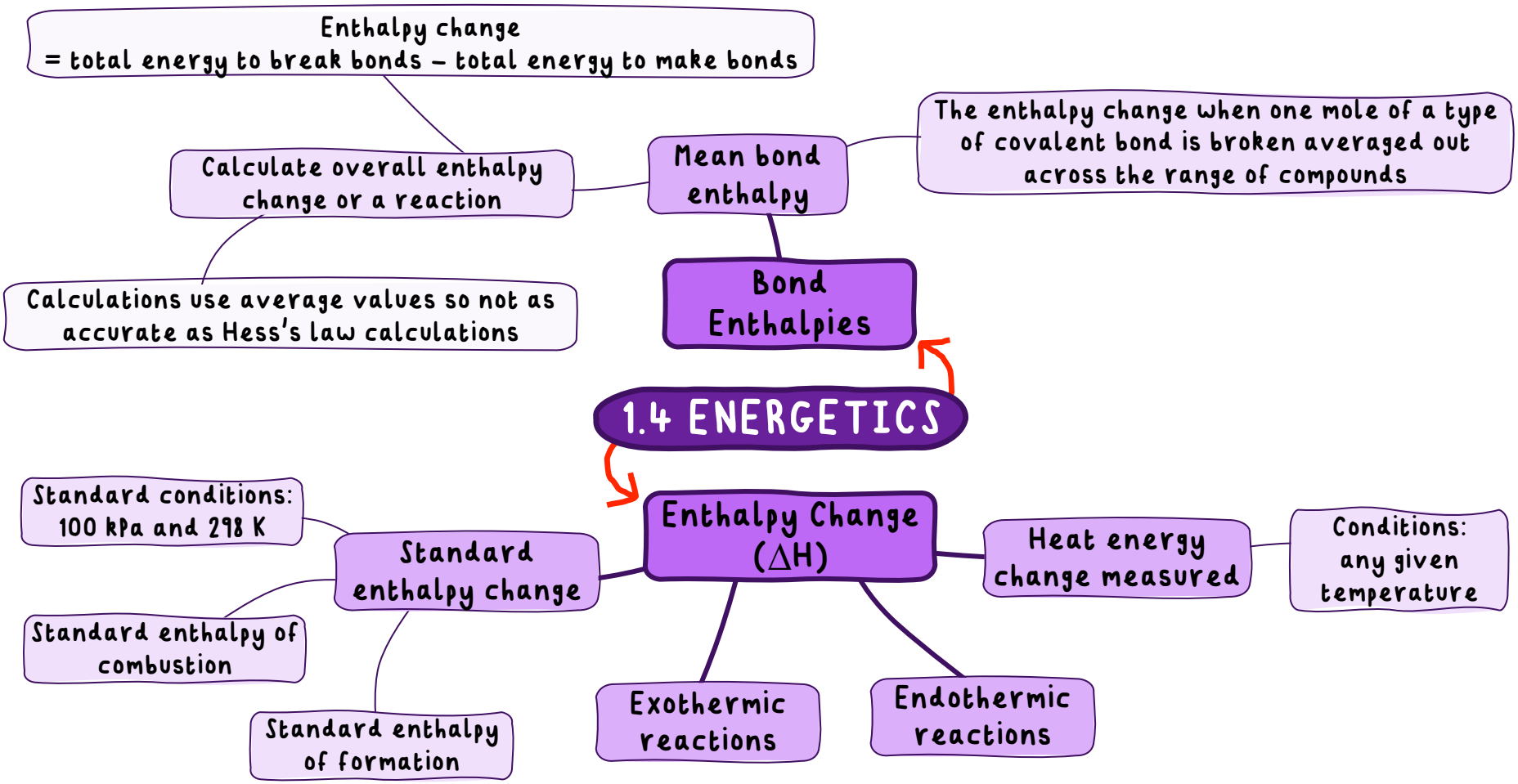

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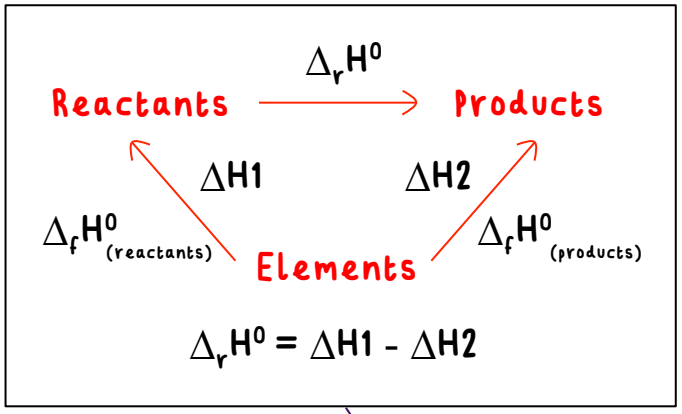
1.4 ENERGETICS

Hess's Law

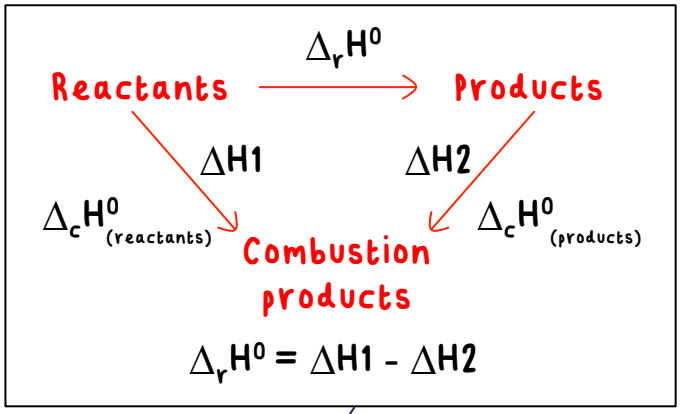
Enthalpy change of a reaction is independent of the route taken

Indirectly calculate enthalpy change

Enthalpies of formation



Enthalpies of combustion



Calorimetry

Experiment to determine enthalpy change

Heat change (kJ) / Moles of fuel reacting

Determine molar enthalpy change (kJ mol^{-1})

$q = mc\Delta T$

Make the value negative if the reaction was exothermic

ΔT = temperature change

Q = heat change (J)

C = specific heat capacity

M = mass of substance which changes temperature

Example reactions:

- Dissolution
- Neutralisation
- Displacement
- Combustion

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