

Energy and Chemical Reactions

Objectives

1. To consider the heat (enthalpy) of chemical reactions
2. To understand Hess' s Law

Energy and Chemical Reactions

A. Thermochemistry (Enthalpy)

- Enthalpy, H – energy function
 - At constant pressure ΔH is equal to the energy that flows as heat.

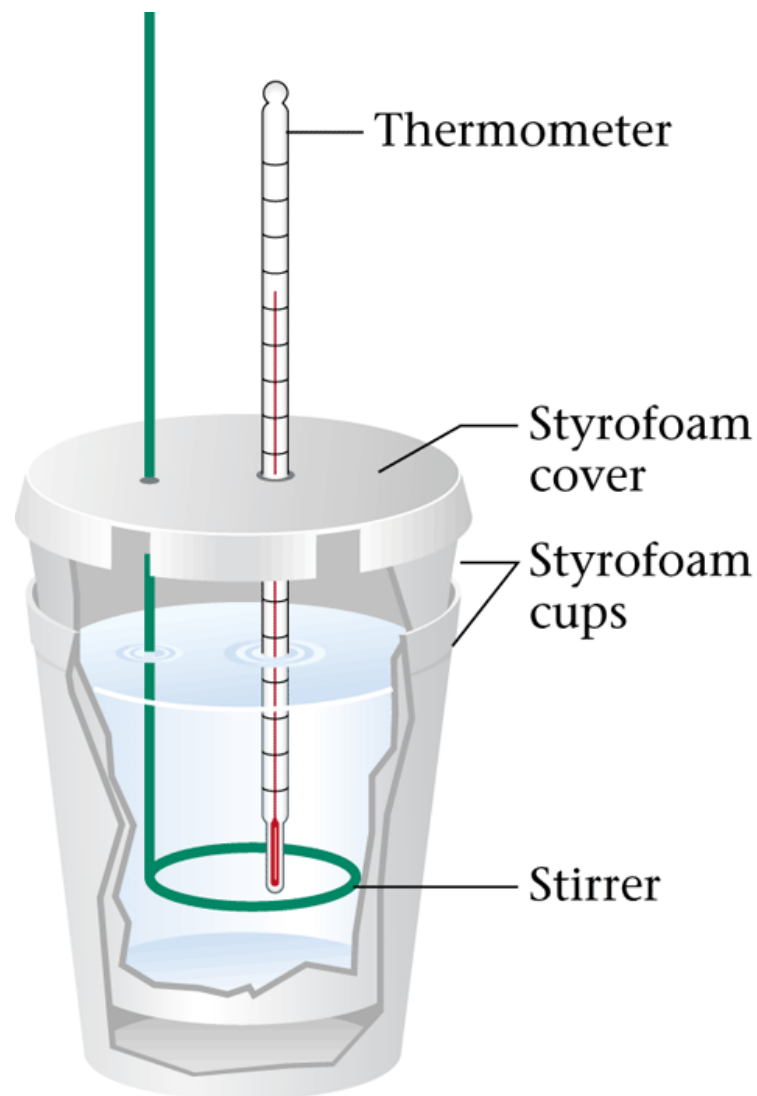
$$\Delta H_p = \text{heat}$$

Energy and Chemical Reactions

A. Thermochemistry

Calorimetry

- Enthalpy, H is measured using a calorimeter.



Energy and Chemical Reactions

B. Hess' s Law

- For a particular reaction, the change in enthalpy is the same whether the reaction takes place in one step or a series of steps.
- Example:

