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Chapter 2: Internal Energy (U), Work (w), Heat (q), Enthalpy (H)

Internal Energy (includes motion and rotation of vessel)

→ look at isolated part of universe



$$U = U_{\text{trans}} + U_{\text{rotation}}$$

Isolated = isolated

First Law of Thermodynamics:

- Total U for isolated system is constant
- Energy can be exchanged between various subsystems
- Energy forms can be interconverted
Eg. Chemical En \rightarrow Heat \rightarrow Work

$$\Delta U_{\text{total}} = \Delta U_{\text{trans}} + \Delta U_{\text{rotation}} = 0$$

Chapter 2 Heat Work Internal Energy Answers

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