

CHAPTER OVERVIEW

3: The First Law of Thermodynamics

- 3.1: Overview of Classical Thermodynamics
- 3.2: Pressure-Volume Work
- 3.3: Work and Heat are not State Functions
- 3.4: Energy is a State Function
- 3.5: An Adiabatic Process is a Process in which No Energy as Heat is Transferred
- 3.6: The Temperature of a Gas Decreases in a Reversible Adiabatic Expansion
- 3.7: Pressure-Volume Work
- 3.8: Heat Capacity is a Path Function
- 3.9: Relative Enthalpies Can Be Determined from Heat Capacity Data and Heats of Transition
- 3.10: Enthalpy Changes for Chemical Equations are Additive
- 3.11: Heats of Reactions Can Be Calculated from Tabulated Heats of Formation
- 3.12: The Temperature Dependence of ΔH
- 3.13: Enthalpy is a State Function
- 3.E: The First Law of Thermodynamics (Exercises)

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