

SECTION OVERVIEW

1.3: Extended Explanations- The First Law of Thermodynamics

1.3.1: Overview of Classical Thermodynamics

1.3.2: Pressure-Volume Work

1.3.3: Work and Heat are not State Functions

1.3.4: Energy is a State Function

1.3.5: An Adiabatic Process is a Process in which No Energy as Heat is Transferred

1.3.6: The Temperature of a Gas Decreases in a Reversible Adiabatic Expansion

1.3.7: Work and Heat Have a Simple Molecular Interpretation

1.3.8: Pressure-Volume Work

1.3.9: Heat Capacity is a Path Function

1.3.10: Relative Enthalpies Can Be Determined from Heat Capacity Data and Heats of Transition

1.3.11: Enthalpy Changes for Chemical Equations are Additive

1.3.12: Heats of Reactions Can Be Calculated from Tabulated Heats of Formation

1.3.13: The Temperature Dependence of ΔH

1.3.14: Enthalpy is a State Function

1.3.E: The First Law of Thermodynamics (Exercises)

1.3: Extended Explanations- The First Law of Thermodynamics is shared under a [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/) license and was authored, remixed, and/or curated by LibreTexts.