

Introduction for Module 7 – Gas Mixtures

Textbook: [Open Stax Chemistry 2e](#)

Suggested Reading: Chapter 9.3

Learning Objectives:

- **Describe how gases combine in a mixture**
- **Calculate properties of gas mixtures using the relationship between partial and percent composition (mole fraction) of each species**
- **Define vapor pressure and its relationship to the partial pressure of water within a saturated gas sample**
- **Calculate how vapor pressure of water contributes to a mixture collected over water**

Captions and Attributions:

- 1) Subset of a vapor pressure table showing the dependence of the vapor pressure of water on temperature
- 2) A schematic diagram illustrating different partial pressures of gases in a sample collected over water



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