

CHAPTER OVERVIEW

13: SOLUTIONS

Solutions play a very important role in many biological, laboratory, and industrial applications of chemistry. Of particular importance are solutions involving substances dissolved in water, or aqueous solutions. Solutions represent equilibrium systems, and the lessons learned in the last chapter will be of particular importance again. Quantitative measurements of solutions are another key component of this chapter. Solutions can involve all physical states—gases dissolved in gases (the air around us), solids dissolved in solids (metal alloys), and liquids dissolved in solids (amalgams—liquid mercury dissolved in another metal such as silver, tin or copper). This chapter is almost exclusively concerned with aqueous solutions, substances dissolved in water.

[13.1: Tragedy in Cameroon](#)

[13.2: Solutions - Homogeneous Mixtures](#)

[13.3: Solutions of Solids Dissolved in Water- How to Make Rock Candy](#)

[13.4: Solutions of Gases in Water](#)

[13.5: Specifying Solution Concentration- Mass Percent](#)

[13.6: Specifying Solution Concentration- Molarity](#)

[13.7: Solution Dilution](#)

[13.8: Solution Stoichiometry](#)

[13.9: Freezing Point Depression and Boiling Point Elevation](#)

[13.10: Osmosis](#)

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