

## CHAPTER OVERVIEW

### 18: Representative Metals, Metalloids, and Nonmetals

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*General Chemistry*

The development of the periodic table in the mid-1800s came from observations that there was a periodic relationship between the properties of the elements. Chemists, who have an understanding of the variations of these properties, have been able to use this knowledge to solve a wide variety of technical challenges. For example, silicon and other semiconductors form the backbone of modern electronics because of our ability to fine-tune the electrical properties of these materials. This chapter explores important properties of representative metals, metalloids, and nonmetals in the periodic table.

- 18.1: Periodicity
- 18.2: Occurrence and Preparation of the Representative Metals
- 18.3: Structure and General Properties of the Metalloids
- 18.4: Structure and General Properties of the Nonmetals
- 18.5: Occurrence, Preparation, and Compounds of Hydrogen
- 18.6: Occurrence, Preparation, and Properties of Carbonates
- 18.7: Occurrence, Preparation, and Properties of Nitrogen
- 18.8: Occurrence, Preparation, and Properties of Phosphorus
- 18.9: Occurrence, Preparation, and Compounds of Oxygen
- 18.10: Occurrence, Preparation, and Properties of Sulfur
- 18.11: Occurrence, Preparation, and Properties of Halogens
- 18.12: Occurrence, Preparation, and Properties of the Noble Gases
- 18.E: Representative Metals, Metalloids, and Nonmetals (Exercises)

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