

Index of Keywords and Terms

Keywords are listed by the section with that keyword (page numbers are in parentheses). Keywords do not necessarily appear in the text of the page. They are merely associated with that section. *Ex.* apples, § 1.1 (1) **Terms** are referenced by the page they appear on. *Ex.* apples, 1

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Chemistry of the Main Group Elements

The main group (s- and p-block) elements are among the most diverse in the Periodic Table. Ranging from non-metallic gases (e.g., hydrogen and fluorine), through semi-metals (e.g., metalloids such as silicon) to highly reactive metals (e.g., sodium and potassium). The study of the main group elements is important for a number of reasons. On an academic level they exemplify the trends and predictions in structure and reactivity that are the key to the Periodic Table. The main group elements represent the most prevalent elements in the Earth's crust, as well as most of the key elements of life, and have enormous industrial, economic, and environmental importance. In this regard an understanding of the chemistry of the main group elements is vital for students within science, engineering, and medicine; however, it is hoped that those who make political and economic decisions would make better ones if they had a fraction of the knowledge of the world around them. In addition to the basic synthesis, structure, properties, and reactivity of the elements and their compounds, sections describing some industrial use, as well as historical or social perspective have been added. These sections were as a result of attempts within class to put the chemistry into a context outside of the classroom. It is important that the discovery and use of elements be understood to be a human endeavor rather than a series of abstract concepts or facts. It is only by an appreciation of the past that we can advance the future.

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