

**EXPLORING THE LATIN ROOTS OF CHEMICAL TERMINOLOGY:  
NAMES OF CHEMICAL ELEMENTS, ACIDS, AND OXIDES**

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**Abstract.** This article explores how Latin has influenced chemical terminology, including element names, acids, and oxides. It highlights Latin roots in names like hydrogen, oxygen, and elements such as gold and uranium. Latin origins are also evident in acid names like hydrochloric and acetic acid, and oxide names like carbon dioxide. This influence adds historical depth to chemistry's language, connecting it to its linguistic roots.

**Key words:** Chemistry, Latin roots, chemical terminology, element names, acids, oxides, the Periodic Table, hydrogen, oxygen, gold, uranium, hydrochloric acid, acetic acid, sulfuric acid, citric acid, carbon dioxide, silicon dioxide, iron oxide, water, historical connection, and linguistic influence.

**Introduction.** Chemistry, often called the central science, has deep roots in Latin, a classical language that has left a profound mark on the terminology of this field. From this article, we will look into the Latin origins of chemical nomenclature, and explore the names of chemical elements, understanding acids, and finding out the properties of oxides.

**I. Influence of Latin on Element Names:**

There are eleven elements represented in the periodic table by letters not in line with their names:

- Sodium (Na – Natrium)
- Potassium (K – Kalium)
- Iron (Fe – Ferrum)
- Copper (Cu – Cuprum)
- Silver (Ag – Argentum)
- Tin (Sn – Stannum)
- Antimony (Sb – Stibium)

- Tungsten (W – Wolfram)
- Gold (Au – Aurum)
- Mercury (Hg – Hydrargyrum)
- Lead (Pb – Plumbum)

Nearly all of these elements were known in ancient times and therefore carry over their Latin names. Some of the names also led to other words that are common in the English language. For example, plumbum, Latin for Lead (Pb), is where we get the words plumber and plumbing, because lead was used in water supply pipes for centuries.

Other names have different origins. For instance, hydrargyrum, the Latin name for Mercury (Hg), was taken from the original Greek hydrargyros, which meant “water silver.” Also historically known as “quicksilver,” elemental mercury is a shiny silver metal that is liquid at room temperature.

## II. Acids: Latin Roots in Chemical Transformations

Latin forms the basis of many European languages such as French, Italian, and Spanish and was used for centuries as the main “lingua franca” of the Roman world, spreading with the expansion of the Roman Empire (1) and later, the Catholic Church (2). Latin has also influenced the English language (3); in fact, many everyday English words have a Latin origin. Examples include: introduction, penultimate, minus, mile, contra- dict, omnipotent, professor, vice president and senate, to name just a few. It is obvious that there would be many scientific and chemical words that have a Latin derivation. There would be two main reasons for this: first, in the western world, Latin was used as the language of scholarship well into the 17th century: the last great English-speaking scientist who used Latin was Isaac Newton in his Principia Mathematica in 1687 (3); second, early Western chemists in the 18th and 19th century, usually had a classical education, steeped in Latin and Greek, so that when it came to describing a new scientific or chemical term, they resorted to their knowledge of Latin and Greek to coin the new word.

## III. Oxides: Latin Foundations

Oxides, compounds formed through the reaction of an element with oxygen, often have Latin origins in their names:

1. Carbon Dioxide (CO<sub>2</sub>) - "Carbon" connects to "carbo," the Latin word for charcoal or coal, highlighting its carbon content.

2. Silicon Dioxide (SiO<sub>2</sub>) - "Silicon" originates from "silex," the Latin word for flint, and "dioxide" denotes the two oxygen atoms it contains.

3. Iron Oxide (Fe<sub>2</sub>O<sub>3</sub>) - "Iron" is derived from the Latin "ferrum," and "oxide" signifies the presence of oxygen.

4. Water (H<sub>2</sub>O) - While not always considered an oxide, "hydro" relates to water's Latin origins in "hydrogenium."

Understanding the Latin roots of oxide names adds a linguistic dimension to these fundamental compounds.

**Conclusion.** Chemistry's Latin roots are directed into its terminology, giving both scientific accuracy and a historical connection to ancient civilizations. Latin origins of chemical element names, acid nomenclature, and oxide terminology not only increases our understanding of chemistry but also reminds us of the history of classical languages in today's world. Chemistry gives us a unique bridge that is between the sciences and the humanities, showing us the rich human knowledge and the discoveries.

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