

Title: The importance of semiotic representations in the teaching of chemistry

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The motivation to do this work was to reflect on the use of chemical language in the classroom, since my focus is to work with scientific literacy and language contributes significantly in this subject.

This work intends to bring reflections and applications on the importance of the use of chemical symbology in the classroom, since students have a great difficulty in the use and interpretation of symbols used in chemical language. For this we will use as theoretical support the bases of the semiotic theory of Charles Peirce that deals precisely on the relations between the representations and their axes of signification.

Semiotics is the science of meaningful processes (semiosis), of the linguistic signs of languages.

This work will be applied in the Maria Elba Braga state school in first, second and third year high school classes since this content will help in the understanding of chemical bonds, chemical formulas of organic and inorganic compounds.

We approach the representations of chemical formulas first in a historical way beginning with the symbology used by the alchemists and passing through chemical languages used by chemists like Dalton and Berzelius arriving until the current symbology.

We analyzed contents such as organic and inorganic compound nomenclatures, periodic table and chemical reactions from the observation of the symbology used allowing students to reflect on the importance of symbols and representations in the construction of chemistry.

We use computational molecular models to help us have a larger and more interactive dimension to the processes of representations of chemical language.

Biography

My name is Marcos Aurelio and I am a graduate student in chemistry, I am 28 years old and have several published works in the area of environment and teaching of chemistry.

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