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# Conceptual Errors and Alternative Conceptions on the Periodic Table of Chemical Elements

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**Abstract :** The objective of this work was to find the possible conceptual errors and alternative conceptions that students have regarding the periodic table of chemical elements and derived themes such as valence, links, compounds and molecules. This was done by applying a test in order to classify, describe, analyze and interpret the data obtained, organizing the information into categories. It was found that the 40 participating students present heterogeneity in terms of concepts such as valence, criteria for classifying chemical elements in the periodic table, transition metals and internal transition metals, as well as rule information regarding the formation of coordination complexes. This is interpreted as a lack of emphasis and clarity in providing concepts in the teaching-learning process.

**Keywords:** compounds, conceptual errors, chemical links, periodic table, chemical valence.

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