Journal of Turkish Chemical Society Section C: Chemistry Education (JOTCSC)
Vol. 6, Issue 1, March 2021, pp. 1-132. ISSN: 2459-1734
Türkiye Kimya Derneği Dergisi Kısım C: Kimya Eğitimi
Cilt 6, Sayı 1, Mart 2021, sayfa 1-132. ISSN: 2459-1734

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https://dergipark.org.tr/jotcsc

A biannual, open-access chemical journal, hosted by Dergipark
(Published, in English and Turkish in every March and September)

Editorial Board

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(sorted by the last names)

Reviewers of this issue

Editorial

We have launched the first issue of our 6th year. It was not easy to strive to publish a qualified journal within six years, especially during an academic upgrade and similar criteria for researchers. At the end of this period, JOTCS-C indexed in DOAJ, DRJI, ASOS index, TEİ; and the Doi number for the articles was taken.

In this issue, five research papers were published. In the first paper, Temel Aslan (2021) has examined the ambiguities and criticisms conducted upon Le Chatelier's Principle along with the reasons and recommendations altogether. Misconceptions are among the main topics of interest in chemistry education studies. One of the important points stressed while analyzing the reasons of misconceptions is epistemological difficulties. The point examined here pertains to the difficulties caused by the nature of concepts or their misconceptions.

However, the concept itself can sometimes be the source of misconception due to its ambiguities which in turn leads to hesitation of whether that concept should be taught or not. In this study, Le Chatelier's principle-included in the chemical equilibrium topic was illustrated as an example for such a situation by Temel Aslan (2021).

In the second paper, Demir and Nakiboğlu (2021) have aimed to reveal the structure of the chemistry field in the 2018 Science Curriculum and to determine to what extent this structure is the basis for the 2018 Chemistry Curriculum. They tried to determine which units, subjects, and acquisitions of the field of chemistry have associated with other fields and what these associated units, subjects, and acquisitions are. At the end of the study, it was concluded that there were 139 acquisitions in the science curriculum which were related to the field of chemistry directly or associated with other fields, and these acquisitions were mostly at the 8th grade and at least the 3rd-grade level. In line with the results obtained, they stated that the determination of different fields that have joint subject/concepts with chemistry in the science curriculum and what these joint subject/concepts are, would contribute to education in terms of both preventing misconceptions about basic science concepts and giving ideas to teachers, book writers, researchers, and program developers.

In the third study, Şendur (2021) has examined what kind of representations are used regarding the nucleophilic substitution and elimination reactions of alkyl halides in textbooks frequently used in organic chemistry courses in the departments of Chemistry Education in Turkey. Nucleophilic substitution and elimination reactions of alkyl halides are one of the major reactions encountered many times in organic chemistry course content. It is important to include different representations of these reactions, which have an essential place in organic chemistry lessons, in the textbooks, and to integrate them. She found that verbal representations were mostly used in both substitution and elimination reactions, followed by symbolic representation, and there were fewer visual representations in elimination reactions than nucleophilic substitution reactions.

In the fourth article, Kıvanç and Aydın (2021) have examined the analogies for the chemistry concepts in the 7th-grade science textbook and their appropriateness according to the Teaching-With-Analogies (TWA) steps. As a data source, the 7th-grade science textbook, which is distributed to students free of charge in the schools affiliated to the Ministry of National Education in the 2020-2021 school year and published on Education and Information Network, was used. The study revealed that there were six analogies (atom and its nucleus, Dalton's atomic model, Thomson's atomic model, Rutherford's atomic model, representation of compounds by formula, homogeneous mixtures) for the concepts of chemistry in the 7th-grade science textbook. When the analogies were examined according to TWA steps, it was determined that in five analogies, the first four steps of TWA were applied, the fifth step was skipped and passed to the last step.

In the last paper, Elmas et al. (2021) have explained the definition of the systems thinking approach, its short historical development, the skills that can be evaluated within this scope and how these skills can be developed. They have briefly discussed the relationship between the STEM education approach and context-based learning approach, and systems thinking approach in the conclusion part. Authors have stated that this review will be valuable and

explanatory for researchers who wonder what the systems thinking approach is and what skills it is associated with.

Finally, I hope that the interest in JOTCS-C will continue increasingly in the following years. It was important to publish a qualified chemistry education journal in our country, and especially to carry out this process within the Turkish Chemical Society for us. I would like to thank on behalf of our editorial board all the authors who submitted articles, and all reviewers for their professional comments.

See you in the new issue in September 2021

Kind regards

Prof. Dr Canan NAKİBOĞLU
Editor-in-chief, JOTCS-C