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## **Journal of the Turkish Chemical Society Section C: Chemical Education (JOTCS-C)**

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## About the journal

JOTCS-C (Journal of the Turkish Chemical Society, Section C: Chemical Education) is an international, peer-reviewed open-access journal which evaluates innovative applications ranging from secondary education to university education and which publishes research articles and review articles containing in-depth analyses directly related to the chemical education. It is published in every September and March (biannually) and it is published in Turkish and English. Double-blind reviewing is applied.

In the journal, book reviews about secondary- and university-level, national and international chemistry textbooks, other sources about chemistry, and book reviews in the teaching and education of chemistry will be covered. In addition, a systematic review about teaching a specific chemical topic or experimental samplings about laboratory teaching can be placed in JOTCS-C.

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## Aim of the Journal

The aim of our journal is to accept and publish chemical education papers, prepared in Turkey and other countries, after a strict peer-review process and serve its audience in an open-access fashion.

## Scope of the Journal

Our journal accepts to examine papers pertaining to all aspects of chemical education and after the peer-review process, publish if they are accepted.

## Peer-review Process

In our journal, we are using double blind peer review in which neither the authors nor the reviewers know the identity of each other. 20 days are given to the reviewers for peer review process. We have prepared an evaluation form for peer review and reviewers fill in this form by selecting appropriate options. In addition, blank areas are prepared on which the reviewers will write their opinions. After the first peer review process, according to the reviews, one of the following methods will be adopted.

In the first method, if two reviewers have recommended revisions, the editor reviews the recommendations and adds his/her extra recommendations to the recommendation letter and sends to the authors. A maximum time of 2 weeks is given to the authors. Authors are requested to upload the revised manuscript containing the changes in a highlighted form and another document explaining the changes. The revision is sent to the reviewers by the editor and their

opinions are acquired again. If the reviewers find the revision adequate, the editor makes the last decision about the manuscript.

In the second method, if two reviewers decline the manuscript, the manuscript and reviewers' opinions are examined by the editor, and if the editor finds it necessary, he/she sends the manuscript to a third reviewer (most probably this reviewer will be one of the editorial advisory board members) and a last review is acquired. If a decision of decline is received, the manuscript is declined.

In the third method, after the first review, a decline and a revision/acceptance is received from two reviewers, the editor examines the manuscript and the responses again. If the editor needs another reviewer, he/she sends the manuscript and receives the decision. If the final decision is decline, the manuscript is declined. If a revision is recommended, the first method is followed and the manuscript is sent to the authors for revision.

## Editorial

We have launched the first issue of our 5th year. It was not easy to strive to publish a qualified journal within five 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 we have started to give Doi names for the articles starting from this issue.

In this issue, five articles were published, three of them are research papers and two of them are review papers.

In the first paper, Kıvanç and Aydın (2020) have investigated the similarities regarding the learning gains of "Nature of Science" in the Science course curricula between Turkey and New Zealand. The findings showed that the learning gains in the programs in Turkey and New Zealand were very similar (81.54%), particularly concerning expression, implication, and emphasis. The similarity of the gains was determined by 15 science teachers' opinions who were working in secondary schools of the Ministry of National Education in Turkey. According to the Trends in International Mathematics and Science Study results, while Turkey is under the international average in understanding the nature of science, New Zealand is located in the upper ranks than Turkey. Since some clues can be reached to close the mentioned difference by examining the curriculum gains of the countries expressed in this study in terms of similarities, the results of the study are essential.

The second paper is an interesting study, and I predict it will be one of the pioneering works for this field. In this study, Tüzün and Eceyurt Türk (2020) have aimed to enhance students' submicroscopic images about chemistry through a science-art application. They studied about macro and submicro nature in a surrealist way on canvas through the science-art application. They found that the students could gain partly scientifically accurate images by constructing surrealist paintings.

In the third study, Elmas (2020) presents an extensive literature review. He aims to define the "context" used in designing science lessons for the context-based education approach and determining the attributes related to the use of this concept. The word context is critical concept and used in many different fields. Elmas (2020) says "some researchers argue that it is difficult to define the context word because of this diverse usage." For this reason, he tries to eliminate this confusion in terms of science education with the present study. Also, this study is intended to identify the attributes related to the use of context and to facilitate the explanation of context for the studies prepared using the context-based education approach.

Fourth article is related to TÜBİTAK 4006 Science Fairs which are important for Turkish Educational Context, TÜBİTAK 4006 Science Fairs are supported by TÜBİTAK to ensure students to be interested in many scientific fields, to increase their participation in scientific studies, and to make students gain research and inquiry skills. For this reason, Kural and Nakiboğlu (2020) aimed to reveal the perspectives of experienced chemistry teachers who participated in TUBITAK 4006 Science Fair Programs as managers or supervisors and to get their views for the development of the program, if any. They concluded that chemistry teachers found science fairs positive in terms of students learning ways to access information. However, it was determined that there was a general belief among

teachers that more active participation of the student in the project application and preparation process would be necessary for this positive effect.

The fifth and last paper "The Roots of Contemporary Chemistry" is another useful review study and related to "alchemy". Aycan (2020) suggests that to inform high school students who take chemistry lessons about alchemy, which is the pre-scientific state of chemistry, is essential in terms of the history of chemistry and its stages. This will increase the students' interest in the history of science, and they will enable scientists to understand their efforts.

Finally, I hope that the interest in JOTCS-C will continue increasingly in the following years. But my usual thought is that it is extremely important that publishing qualified papers that will contribute to chemistry education. It should not be forgotten that the primary purpose is not to write an article; our main goal is to find solutions to the problems in chemistry education with our studies. These studies are nothing more than just filling in our files unless they guide chemistry students, teachers and educators.

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...

Kind regards

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