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Editorial

With the publication of Volume 11, Issue 1, we are pleased to begin the second decade of our journal. Reaching this new stage is both meaningful and inspiring for us. Completing our first ten years was an important milestone, and stepping

into our next decade renews our sense of responsibility and commitment to the field of chemistry education.

In this new issue, we are also pleased to introduce a new section, Book Review, which we hope will further enrich the intellectual scope of our journal and provide our readers with an additional platform for critical academic engagement.

Throughout this journey, I have been deeply grateful to all my colleagues who have continuously supported our journal through their valuable article submissions and their dedicated service as reviewers, both of which have played a vital role in ensuring its continuity.

I would also like to express my sincere appreciation to our Managing Editor, Dr. Barbaros Akkurt, and our Language Editor, Dr. Ebru Demir, for their exceptional dedication and meticulous efforts in managing this process with me from the very beginning.

In this issue, four research articles, one review article, and one book review are included. Together, these contributions reflect the breadth of current scholarship in chemistry education and offer valuable perspectives on different aspects of the field. While the research articles present findings from diverse empirical studies, the review article provides a broader perspective on a particular topic, and the book review introduces readers to a recent contribution that may further enrich academic discussion in chemistry education.

In the first research article, Aydoğan Tosun and Kadayıfçı (2026) investigate pre-service chemistry teachers' perceptions of scientific creativity in learning and teaching contexts through Rhodes' 4P framework. Using a descriptive case study design, the authors collected data from 20 pre-service chemistry teachers through a researcher-developed perception form built around six fictional chemistry scenarios and supported by semi-structured interviews. The findings showed that the participants generally identified creative opportunities appropriately in most cases; however, they tended to emphasize novelty over appropriateness and were more likely to perceive concrete products as creative than abstract explanations. Overall, the study offers important implications for teacher education by highlighting the need to develop a more comprehensive understanding of scientific creativity in chemistry learning and teaching contexts.

In the second research article, Temel Aslan (2026) examines how the law of conservation of mass is presented in Turkish high school chemistry textbooks within the context of the history of science, with particular attention to how Lavoisier and his work are portrayed. Employing a qualitative document analysis design, the study analyzes eleven 9th- and 10th-grade chemistry textbooks approved by the Ministry of National Education in Türkiye over the past decade. The findings reveal that the textbooks explain the law almost exclusively through Lavoisier's studies and typically present him as the discoverer of the law on the basis of his experimental work. By comparing these textbook accounts with studies in the history of science, the author shows that some of these explanations are not fully consistent with the historical literature. Overall, the study draws attention to the need for a more careful and historically accurate integration of the history of science into chemistry textbooks.

In the third research article, Karaoğlu and Nakiboğlu (2026) examine preservice chemistry teachers' views on the implementation of the Science Writing Heuristic (SWH) approach in secondary school chemistry experiments. Using a single, descriptive, and explanatory case study design, the authors collected data from

six fourth-year preservice chemistry teachers through a structured written opinion form after a semester-long laboratory teaching process in which different strategies, approaches, and methods were experienced. The findings indicate that the participants regarded SWH as clearly different from other laboratory approaches because of its learner-centred structure, its emphasis on active participation and autonomy, and its integration of multiple methods, techniques, and materials. They also reported that the approach supports inquiry, thinking, writing, and observation skills, although it may present challenges related to classroom management, time management, and adaptation to every topic or experiment. Overall, the study underlines the instructional value of SWH in chemistry laboratory teaching and points to the importance of supporting both preservice and in-service teachers in its effective implementation.

In the fourth research article, Çiftçi and Aydın (2026) compare the learning outcomes in the 8th-grade "Matter and Industry" unit of the primary science curricula of Türkiye and Namibia in terms of implication, emphasis, and expression. Using a qualitative document analysis design, the authors examine the official science curricula of the two countries and analyze how the intended learning outcomes are framed pedagogically. The findings indicate that both curricula aim not only to promote knowledge acquisition but also to foster conceptual understanding and scientific process skills, while implicitly encouraging learning through experimentation, observation, and modeling. The study further shows that both curricula emphasize topics such as the periodic system, physical and chemical changes, and the classification of matter; however, the Turkish curriculum gives greater prominence to the chemical industry and environmental issues, whereas the Namibian curriculum presents basic chemistry concepts in a more systematic way. Overall, the article offers a valuable contribution to comparative science education by highlighting both common curricular goals and context-specific emphases that may inform future curriculum development.

In the review article, Ayas (2026) discusses the nature and significance of the relationship between academic chemistry and school chemistry and argues that these two domains should be addressed in close collaboration rather than as separate or competing fields. The article emphasizes that school chemistry should not be limited to the transmission of information, but should instead promote conceptual understanding, research skills, curiosity, and sustainable learning, while also preparing future scientists through high-quality education. In this context, the author critically examines recent curriculum reforms in Türkiye, pointing to persistent problems related to infrastructure, teacher education, in-service training, uniform curriculum implementation across different school types, and the limited integration of research-based curriculum development. Overall, the review offers a comprehensive and thought-provoking evaluation of how stronger connections between academic chemistry, school chemistry, science policy, teacher education, and assessment systems may contribute to improving the quality and sustainability of chemistry education.

In the book review, Yılmaz (2026) introduces Kavramsal Değişim Kuramları ve Uygulamaları, edited by Pekdağ and Azizoğlu, as a comprehensive and up-to-date Turkish reference work on conceptual change in science education. The review highlights that the book brings together fourteen chapters addressing the historical development of conceptual change theories from Posner's classical model to more recent cognitive, affective, ontological, semantic, and didactic

perspectives, while also presenting classroom applications and interdisciplinary connections across science education. Particular attention is drawn to the book's value for researchers, graduate students, and science teachers, as well as to its innovative treatment of semiotics and the proposed field of "Chemisemiotics." Overall, the review presents the volume as a significant contribution that may provide a strong theoretical and pedagogical foundation for future studies in the field.

Finally, I hope that interest in JOTCS-C will continue to grow in the years ahead. Publishing a high-quality journal in chemistry education in our country has always been important to us, and it has been especially meaningful to carry out this process under the umbrella of the Turkish Chemical Society. On behalf of the editorial board, I would like to sincerely thank all authors who submitted their work to our journal and all reviewers for their valuable and professional contributions.

See you in the next issue in September 2026.

Kind regards,

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

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