

7th EuroVariety

European Variety in University Chemistry Education

BOOK OF ABSTRACTS

***University Chemistry Education for the Challenges of
Contemporary Society***

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PREFACE

The conference entitled 7th EuroVariety – European Variety in University Chemistry Education has been organized by the University of Belgrade – the Faculty of Chemistry, the Serbian Chemical Society and the EUChEMS Division of Chemical Education. The main aim of the Conference is to provide an opportunity to share knowledge and experience relating to the important issues concerning university chemistry and chemical technology education in order to prepare future students to better respond to their personal needs and the needs of the contemporary society and to meet the labour market requirements. Therefore, the conference theme "**University Chemistry Education for the Challenges of Contemporary Society**" points out the need for continuous reconsideration of the connections between BSc, MSc and PhD chemistry studies and the contemporary professional, social and scientific challenges.

Over 70 participants from 29 countries have shared their experiences in their presentations offering their insights, pointing up the challenges and suggesting new solutions regarding the following Conference topics:

- Development of the university curricula for BSc, MSc and PhD chemistry studies
- Competency-based university chemistry education
- Chemistry education through university-industry partnerships
- Laboratory work as an element of problem solving and inquiry-based chemistry education
- Ethical guidelines and university chemistry education for sustainable development
- The use of ICT in chemistry education at the 3rd level
- The role of history of chemistry and philosophy of science in university education
- Cultural heritage and chemistry education
- Development of educational competencies of academic chemistry teachers
- Evaluation of learning outcomes and problems relating to assessment in HEIs
- The contemporary chemistry teachers' education and the long-term professional development of chemistry teachers.

Summaries in this Book of Abstracts deal with the practical aspects of teaching chemistry and research into chemistry education at both undergraduate and postgraduate levels with the aim of enabling students to build key professional and transferable skills needed in order to be successful in a highly competitive labour market and life in the rapidly changing world.

I wish all participants a successful conference and fruitful discussion. I hope you will all enjoy your stay in Belgrade.

Dragica Trivic

Head of the Local Organizing Committee

GUESTS OF THE CHEMISTRY DIDACTICS CLASSES - A STEP TOWARDS PLANNING INTERDISCIPLINARY TOPICS

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During the previous two decades we established the practice to invite the experts from different fields as guests of the *Chemistry Didactics* classes at the Faculty of Chemistry University of Belgrade. We believed that this practice would help students to develop their communication and collaborative skills with experts from other disciplines. Moreover, it helps them to think from different perspectives about topics that could be relevant for youth education, their future professional orientation, and society, and enables them to better prepare for the planning and realization of interdisciplinary approach in their future classrooms.

In this presentation we will describe a workshop which was realized in cooperation with geographers. This workshop encompassed the students, future chemistry teachers, at their final years of study. The workshop had several parts. An important part related to the production of questions which could be answered through the cooperation of chemists and geographers. After that the importance of these questions was discussed within the framework of individual, societal and vocational relevance (Eilks and Hofstein, 2015) related to the youth education and their future decision-making in everyday life, better integration into society and professional orientation. The final part was associated with the formulation of topic that could be realized by interdisciplinary approach.

This workshop can serve as a model of work for the future chemistry teachers, of how they can involve different specialists in their chemistry classes in order to make their lessons more relevant to youth.

Keywords: Chemistry teachers' education, Interdisciplinary approach, Workshop

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Eilks, I. and Hofstein, A. (2015). From some historical reflections on the issue of relevance of chemistry education towards a model and an advance organizer – a prologue In Eilks I. and Hofstein A. (Eds.), *Relevant Chemistry Education From Theory to Practice* (2–10). Rotterdam: Sense Publishers.