

The 11<sup>th</sup> International Conference on the History of Chemistry

**11  
ICHC**

Trondheim, Norway  
29 August - 2 September 2017

**EuCheMS**  
European Chemical Sciences  
Working Party on History of Chemistry



# 11<sup>TH</sup> INTERNATIONAL CONFERENCE ON THE HISTORY OF CHEMISTRY, TRONDHEIM 2017

## BOOK OF ABSTRACTS

Edited by Annette Lykknes and Ignacio Suay-Matallana

Organised and hosted by:

**EuCheMS**   
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**NTNU – Trondheim**  
Norwegian University of  
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The steering organising committee gratefully acknowledges the continuous support received from the members of the international Advisory Committee in preparing and organising the conference.

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follow the spaces, the teaching, the textbooks and other written material used as well as the objects that still remain from that period of study. We hope to make more visible the tenuous dynamics of a network of influences we can identify, in some cases trying to reinforce an Iberian connection and in others a Belgium, French or German influence, both on the methodology and spaces.

## **Science in the Classrooms during the 19th Century: Professor Mariano Santisteban (1821-1886)**

Jose-Antonio Pariente Silván

Universitat de Valencia (PhD student), jopasil@alumni.uv.es

This communication is part of a doctoral thesis project whose beginnings were presented at the 10th International Conference on the History of Chemistry. The time elapsed and the work done allows us to respond with this paper to some of the issues that were raised at that time.

The first laws that led to the establishment of secondary education in Spain were published during the first half of the nineteenth century. At the same time, “physics and chemistry” was defined as a single subject. This discipline had no equivalent outside of the Spanish educational context. It was the use of laboratory practices undertaken by teachers, together with the new teaching tools created by them what joined the two disciplines. We are going to know, thanks to the training and teaching career of Mariano Santisteban, the relationships among his practical demonstrations in the laboratory, the progress of the manual that he wrote and the appearance of new teaching tools like paper and pencil problems. It was in this period that science became decisive in the secondary education. This incorporation produced debates related with the role of science in the general education of citizens, which are still ringing in our ears.

## **Mita Petrović’s chemistry textbook as a framework for learning chemistry in secondary schools in Serbia in the 19th century**

Vesna D. Milanovic and Dragica D. Trivic

University of Belgrade, Faculty of Chemistry, Studentski trg 12-16, 11000 Belgrade, Serbia, vesnamilanovic@chem.bg.ac.rs; dtrivic@chem.bg.ac.rs

The first secondary-school chemistry textbooks in Serbia date from the second half of the 19th century. With aim to gain insight into chemistry knowledge that was presented to secondary school students in Serbia in the second half of the 19th century, and didactic organisation of the textbooks from that period, we analysed secondary-school chemistry textbook written by Mita Petrović. The first edition of this textbook was printed in 1883.

Mita Petrović (1848–1891) worked at the Serbian Teacher training School in Sombor, where he taught mathematics and natural sciences. His textbook Chemistry for

Secondary Schools, based on Prokop Prohaszka and Others, was used more than 20 years and shaped the way of thinking in chemistry among the generations of students. In order to achieve the set goal, we needed to develop a methodology for analysing and evaluating the quality of this textbook within the context of the period when it was created.

The contents of Mita Petrović's textbook are organised into two sections: inorganic chemistry and organic chemistry. The material related to inorganic chemistry is interspersed with segments of material in which general chemical principles and laws are reviewed. The organic compounds are systematised in accordance with homologous series.

Numerous structural and organisational components are identified in the textbook. Also, the indicators of didactic organisation of a textbook, such as explanations of scientific terms, a functional use of illustrative means of expression and variety of the examples used are present in the analysed textbook.

## **The material culture in the chemistry lecture and cabinet of the National Preparatory School at the end of the 19th century**

Felipe León Olivares

Escuela Nacional Preparatoria. Universidad Nacional Autónoma de México,  
felipeleon@unam.mx

The aim of this paper is to analyse the Chemistry lecture and cabinet in the Escuela Nacional Preparatoria at the end of the 19th century. Nowadays, the institution is part of the Universidad Nacional Autónoma de México's high school subsystem. This paper will analyse, on one hand, the study to show the material culture of the ENP's Chemistry cabinet, as part of the Chemistry lecture and the lecturer's academic formation; on the other hand, the books that were used during the lectures between the years 1867 and 1900. Finally, the work is based on archive work, such as the Universidad Nacional Autónoma de México's Historic Archive through the Fondo Escuela Nacional Preparatoria, furthermore, the UNAM's Archivo Histórico de la Antigua Escuela Nacional de Medicina, particularly the Student's Files.

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**THURSDAY, 31 AUG, 14:00-15:20, SESSION A5**

### **Panel: Toxic Products / Toxic Risks [contd.]**

X. Guillem, José R. Bertomeu (organisers)

J. R. Bertomeu (chair)

- R. Lutz, "Petroleum Progress"
- P. Punter-Chiva, "Climate Change Spanish Deniers"
- C. Teixeira, M. C. Lourenço, "Toxic Substances in Scientific Collections"
- X. Guillem, comment