## **Energetic Materials**

## by Reşat Apak

The "International Workshop on Energetic Materials," associated with the Analytical Chemistry Division Project entitled "Critical Evaluation and Vocabulary of Chemo-sensing and Determination Methods for Explosive Residues On-Site and in the Field" (project 2015-008-2-500), was held in Istanbul University, Istanbul, between 18-19 October 2018. Though the project focuses on the analytical chemistry of energetic compounds, the workshop aimed to gather scientists dealing with all aspects of energetic compounds, including synthesis, characterization, stability, physical chemistry, biochemistry and environmental chemistry of explosives, and finally the engineering aspects of ammunition. The workshop brought together world experts, including invited speakers from Australia, USA, U.K., France, Spain, and Turkey, and provided a forum among energetic materials researchers.

Aside from the rich scientific content of the workshop which enabled all the participants to share project achievements, the workshop organizers, as well as the energetics research group in Istanbul University, welcomed participants to the historical city of Istanbul, which unites two continents and comprises many civilizations.

The opening ceremony of the workshop was held by Rector Prof. Nuri Aydin and Vice Rector of Istanbul University-Cerrahpaşa Prof. Mehmet Bİlgİn. As IUPAC project partners, Prof. Jean Claude-Tabet (Sorbonne University, France), Prof. Wujian Miao (University of Southern Mississippi, USA), Assoc. Prof. Manel Del Valle (Autonomous University of Barcelona, Spain), Assoc. Prof. Jose Gonzalez-Rodriguez (University of Lincoln, UK) and Prof. İbrahim DİNÇER from University of Ontario-Canada, and Head of TUBITAK-SAVTAG (Turkish Scientific Technological Research Council-Defense Technological Research & Development Division) Colonel Dr. Mustafa CIVELEK participated. Additionally, experts from the Presidency of Turkish General Staff, TUBITAK-SAGE, TUBITAK-MAM, ROKETSAN AS, ALTI-NAY Aviation and Advanced Technologies Inc., Istanbul University-Cerrahpasa, Baskent University, Kirikkale University, Ondokuz Mayis University, Hacettepe University and Gazi University actively took part in the Workshop with mostly oral and poster presentations.

IWEM2018 started with the opening speeches of the Rector of Istanbul University-Cerrahpaşa, Prof Dr. Nuri Aydın, and the Co-Chairman of IWEM2018 Prof. Dr. Reşat Apak. Then Assoc. Prof. Sevil Ulucan Weinstein and her team from Istanbul University-State Conservatory performed a violin concert.

During IWEM2018, the following presentations were made: Studies on the detection energetic materials in the environment were reported by Prof. Reşat Apak, Assoc. Prof. Ayşem Arda and research team (orally presented by Prof. Apak) under the title "Examples of Colorimetric and Electrochemical Sensors/ Nanoprobes (Devised in Istanbul Univ.) for Determination of Energetic Materials"; "Overview of Novel Hydrogen and Ammonia Production Research at CERL" by Prof. İbrahim DİNÇER as Plenary Lecturer; "Mass spectrometry detection of nitro explosives" by Prof. Jean Claude-Tabet as a keynote lecturer; "Trace detection of explosives based on electrochemical, chemiluminescent, and electrogenerated chemiluminescent techniques" by Prof. Wujian Miao as a keynote lecturer; "Development of molecularly imprinted polymers for the sensor-based detection of explosives" by Assoc. Prof. Manel Del Valle as a keynote lecturer, "Identification and detection of home-made and most common improvised explosives used in terrorist attacks by chromatographic and spectroscopic techniques" by Assoc. Prof. Jose Gonzalez-Rodriquez as a keynote lecturer.

A total of 55 researchers attended IWEM2018; the workshop was successfully completed with the oral presentations of 15 invited speakers from different universities and organizations, totaling 20 oral and 9 poster presentations with positive feedback from the attendees in the closing panel. The workshop hosted scientific discussions with the potential for further cooperation possibilities among heterogenous research groups.

The IUPAC Project 2015-008-2-500 meeting was held just after the workshop with participants Prof. Reşat Apak, Assoc. Prof. Ayşem Arda, Prof. Jean Claude-Tabet, Prof. Wujian Miao, Assoc. Prof. Manel Del Valle, and Assoc. Prof. Jose Gonzalez-Rodriquez. Ultimately, the outcome of this project will constitute a technical report to be published in *Pure and Applied Chemistry*. The participants either brought their draft contribution or promised to submit within a short time following the meeting.

For further information, contact the Task Group Chair Professor Reşat Apak <rapak@istanbul.edu.tr,> or visit https://iupac.org/project/2015-008-2-500 or http://iwem2018.istanbul.edu.tr