14th INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY Rhodes, Greece, 3rd -7th of September 2015

The 14th edition of International Conference on Environmental Science and Technology (CEST 2015) took place in Rhodes (Greece) at Rodos Palace International Convention Centre, between 3rd to 5th September 2015. This biennial conference is supported by the multidisciplinary Global NEST (Network of Environmental Science and Technology), an international scientific movement focused on the new trends on environmental field with members from more than 65 countries. This edition has been organized by the Department of Mathematics and the Department of Environment of the University of the Aegean. The symposium offered five presentations of invited speakers of international renowned scientists, such as Dr. Polycarpos Falaras from NCSR "Demokritos" (Greece), Dr. Kathrin Fenner and Dr. Juliane Hollender from Eawag (Switzerland), Dr. Kevin Thomas from Norwegian Institute for Water Research and Dr. Vincenzo Belgiorno from University of Salerno (Italy).

The CEST 2015 meeting consisted in more than 30 different sessions presented in five parallel rooms, totaling 309 oral and 195 poster presentations. The conference sessions covered 19 scientific topics related to emerging environmental issues. Furthermore, several workshops were held in Rhodes, the most relevant was the 1st NORMAN workshop on analysis of problematic compounds based on how can we analyse very polar and hardly-ionisable compounds. The workshop took place before the conference, on 1st and 2nd of September 2015. Both HILIC and new ionization techniques for non-polar compounds were discussed. The aims of this workshop was closely related to the "Emerging Pollutants" topic where trends in target and non-target screening methods were presented.

The "Emerging Pollutants" topic was treated during five different sessions and was the most related topic to chromatographic techniques. These sessions highlighted that liquid chromatography coupled to high resolution mass spectrometry (LC-HRMS) become the most powerful tool for the analysis of environmental pollutants. The capabilities of LC-HRMS for quantitative and qualitative purposes were showed in different presentations. As an example, Dr. Bletsou presented a target screening method for 2327 emerging pollutants through a database with molecular formula, accurate masses, retention times and fragment ions generated injecting authentic standards. Several presentations showed the importance of retention time prediction software for suspect and non-target analysis, where standards were not available. Furthermore several authors used both HILIC and Reverse Phase separations to obtain more information in order to elucidate or confirm compound identities. In addition, new retention time prediction models were presented.

Finally, the invited speaker Dr. Hollender showed the applicability of suspect and nontarget screening to obtain a valuable record of historical persistent contamination in lake sediments.

Definitely, the conference offered a high quality scientific programme with presentations on the most recent advances also in other topics such as water supply and treatment, air pollution, solid waste management, hydrological modelling and climate change.

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