IMA 09—6th International Conference on Instrumental Methods of Analysis: Modern Trends and Applications

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The conference “IMA 09, *Instrumental Methods of Analysis: Modern Trends and Applications*”, was held on 4–8 October 2009 in Athens, Greece, an excellent combination of modern life and many important archaeological sites, for example the Acropolis, Agora, Cape Sounion, and others. IMA 09 was the sixth conference in this series started in 1999 in Chalkidiki, Greece, under the Chairmanship of M. Ochsenkühn-Petropoulou; since then there has been a continuation every two years organized each time by another academic Greek analytical chemistry laboratory.

IMA 09 was organized with the cooperation of the two oldest and largest Greek academic analytical chemistry laboratories both situated in Athens, those of the Kapodistrian University and the National Technical University of Athens. Co-organizers were the other Greek academic analytical chemistry laboratories, which had been responsible for the former IMA Conferences. The conference was opened by C. Mountzouris, Rector of the National Technical University of Athens.

Fields such as novel analytical instrumentation, lab-on-a-chip system for nanoanalysis, sensors for biological and chemical systems, laser-induced breakdown spectroscopy, process analysis, speciation and environmental analysis, clinical and biomedical analysis, for example discovery, quality assurance in the pharmaceutical industry, metabolic

profiling of drugs, and new trends in chromatography, electroanalysis, spectroscopy, and FIA analysis, and interesting applications in these areas, were presented during this five-day conference.

The scientific framework consisted of eight sessions, six of which were held parallel. Sessions were introduced by plenary lectures given by well-known, invited scientists from all over the world, experienced in the respective fields. The sessions were chaired by experts in instrumental methods of analysis, as follows:

- Modern Tools and Trends in Analytical Technology: introduced by Gary M. Hieftje lecturing on “More tools and techniques for instrumental analysis”.
- Flow Injection Analysis: introduced by Bo Karlberg, lecturing on “FIA—a technique for more than one analyte at a time?”.
- Sensors-Biosensors: introduced by Les Ebdon, lecturing on “Robust sensors for monitoring nutrients in the environment”.
- Nano Analysis: introduced by Freddy Adams, lecturing on “Spectrometric Analysis at the Nano Level”.
- Process Analysis Technologies/Spectrometric Techniques: introduced by Thomas de Beer, lecturing on “Implementation of Process Analytical Technology (PAT) Systems in Pharmaceutical Production Processes. A Case Study: Freeze Drying”.
- Sample Preparation/Environmental Analysis: introduced by Bernhard Welz lecturing on “Are You Still Digesting Your Samples for Trace Element Determination?—There Might Be Interesting Alternatives!”.
- Speciation/Environmental Analysis: introduced by Manfred Grasserbauer lecturing on “The Environmental Challenge for Analytical Sciences”.
- Separation Sciences/Chromatography: introduced by Wolfgang Lindner lecturing on “Molecular Recognition: a Key Parameter in Separation Sciences”.

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- Electroanalysis/Chromatography: introduced by Jiří Barek lecturing on “New Trends in Electroanalytical Monitoring of Genotoxic Substances”.
- Spectrometric Techniques: introduced by Osman Yavuz Ataman lecturing on “Does Anybody Care for a Very Sensitive, Low-Cost Atom Trapping AAS System Any More?”.
- The Impact of Natural Products on Food Quality. This session was introduced by three invited speakers:
Panagiotis Kefalas lecturing on “Chalcones and Aurones: Chemical and Enzymic Synthesis, Structure Elucidation and Evaluation of their Antioxidative and Insecticidal Activity”.
Kostas Biliaderis lecturing on “Analytical Approaches to Understanding Quality and Functionality Aspects of Cereal Dietary Fibers”.
Maria Tasioula-Margari lecturing on “Structural Confirmation of Oleuropein and Ligstroside Aglycons and their Oxidation Products by HPLC-MS”.
- New Analytical Approaches I: introduced by two invited speakers:
Ryszard Lobinski lecturing on “Metallomics: the Concept and Methods”.
Alfredo Sanz-Medel lecturing on “Heteroatom-Tagged Proteomics: Atoms and Isotopes Come to the Rescue for Absolute Protein Determinations”.
- New Analytical Approaches II. This session was a continuation of session 7.

The conference was attended by more than 250 scientists, including about 100 young researchers (Ph.D. students and postdoctoral research workers) from approximately 30 countries. The scientific program included, besides the 15 invited lectures mentioned above, 60 oral presentations in parallel sessions and two poster sessions consisting of approximately 100 posters each. Highlights of IMA 09 were four workshops organized by the main manufacturers of analytical instrumentation. These workshops were focused on current analytical topics of wide interest, useful especially for the young researchers, as follows:

“Water Analysis and Ion Chromatography” (Dionex)
 “The Role of Chromatography in Food Quality and Safety” (Perkin Elmer)
 “Total Solutions in modern Mass Spectrometry” (Agilent Technologies)
 “Spectrometric Methods for the Determination of Metals by ICP-MS” (Varian)

The conference was complemented by several interesting and enjoyable social events, a tour of the

Acropolis, a visit to the new Acropolis Museum, a Cape Sounio excursion, the welcome party, and the conference dinner with Greek music, dances, and traditional Greek food, giving a unique colour to the IMA conferences according to the opinion of all participants. The program for IMA 09, abstracts and more are still available at: <http://www.chem.uoa.gr/ima2009>

The next IMA conference, IMA 2011, will take place in Chania, Crete, Greece, on 18–22 September 2011, organized by the Technical University of Crete and the Mediterranean Agronomic Institute of Chania (MAICH).

Maria Ochsenkühn-Petropoulou

is Professor at the School of Chemical Engineering of the National Technical University of Athens (NTUA) and head of the Instrumental Methods of Analysis—Environment Group within the Laboratory of Inorganic and Analytical Chemistry. Since 1976 she has been Professor of Instrumental Methods of Analysis at the NTUA, teaching instrumental methods of analysis, environmental control and advanced inorganic chemistry to

graduate and postgraduate students of the NTUA. Her research interests include speciation analysis, investigation of airborne particulate composition and of particulates emitted from vehicle catalysts, trace element analysis by voltammetric, spectrometric, and hyphenated chromatographic techniques, utilization of industrial byproducts in the laboratory and on a pilot-plant scale, and production and characterization of superconducting powders and coatings. She has published more than 200 scientific papers in international journals and conference proceedings, and has been the coordinator of more than 40 European and Greek research projects. She is the founder of the IMA International Conference series.

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