



IMA-2015

9th International Conference on
Instrumental Methods of Analysis: Modern Trends and Applications

Conference Program



**9th International Conference on
Instrumental Methods of Analysis: Modern
Trends and Applications**



September 20-24, 2015, Kalamata - Greece

Organized by

Department of Food Technology,
Technological Educational Institute of Peloponnese
Laboratory of Inorganic and Analytical Chemistry,
School of Chemical Engineering NTUA



Under the auspices of

EUCHEMS Division of Analytical Chemistry
Association of Greek Chemists



PREFACE

The organizing committee of the IMA-2015 Conference would like to welcome all participants to the 9th International Conference on "Instrumental Methods of Analysis-Modern Trends and Applications", held in Kalamata, Greece, in September 20-24. The conference is organized by the Department of Food Technology of Technological Educational Institute of Peloponnese and the Lab of Inorganic and Analytical Chemistry of the School of Chemical Engineering of the National Technical University of Athens. IMA is a biannual series of conferences that started in 1999 and covers all areas of modern trends and applications of Chemical Analysis.

Due to the great interest and the numerous participants from the Food Science and Technology scientific community, including related companies, this year's conference will emphasize on research on Food Analysis. For this reason, four sessions on the first conference day are devoted on research related mainly to food analysis with emphasis on food safety, aroma compounds determination, packaging, and novel foods. The current analytical trends will be revealed with presentations covering a large spectrum of techniques such as Spectrochemical, Electrochemical, Chromatographic etc. The new trend of combining analytical methods and using hyphenated techniques has unfolded new perspectives and challenges in chemical analysis, dealing with difficult problems related to modern materials, food, environmental micro-pollutants of toxicological interest. These issues will also be discussed during IMA2015.

The scientific Conference program consists of 14 invited and 6 plenary lectures, 15 sessions with oral presentations and a considerable number of posters to be presented in the respective sessions. In addition, researchers of Academia, Research Institutes and the Industry will present up-to-date development on analytical instrumentation as well as applications to a wide range of physical, earth and life sciences. At the same time a cultural program with visits to archaeological sites of the Ancient Messini, the city of Kalamata and Diros cave, as well as a visit to a local oil factory will render the participants' stay more interesting and enjoyable.

We strongly believe that the discussions and the exchange of ideas among the participants during the 5 days of the meeting will make IMA a brilliant platform to initiate new research collaborations, particularly in favor of the young scientists participating in the conference.

The papers presented at IMA2015 can be submitted to 6 journals of Elsevier, depending on the topic. Accepted papers will be linked to form a Multi-journal Virtual Special Issue dedicated to IMA2015 conference.

We wish you all to enjoy this conference as all the previous IMA conferences since 1999 and have a pleasant stay in Kalamata, hoping to meet you again during the next IMA2017.

With our best regards

The Chairpersons

Dr. John Kapolos

Dr. Maria Ochsenkühn-Petropoulou

Professor, Technological Educational Institute
of Peloponnese

Professor, National Technical University of
Athens

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General information

The 9th International Conference "IMA 2015-Instrumental Methods of Analysis-Modern Trends and Applications" 20-24 September 2015, Kalamata, Greece is a five-day scientific meeting covering all areas of modern trends and applications of Chemical Analysis. For the last 16 years IMA has provided an excellent framework for the presentation of new concepts, instruments, methods, systems, and applications in the area of modern chemical analysis. Researchers and scientists from Universities, Research Institutions, State Organizations, and the Industry come together during the meeting to present and discuss the current state of the art in the area of instrumental methods of analysis. At the same time, it provides the grounds for the graduate and post graduate students to present their projects, discuss scientific collaborations with other groups, as well as to explore employment opportunities. An exhibition of analytical instruments and accessories will be also organized in the conference place whereas a number of excursions, tours and social events are planned to be included in the program of the IMA 2015.

Topics

Current trends on Spectrochemical, Electrochemical, Chromatographic, Microscopic and Thermal analysis methods, Hyphenated techniques, Speciation analysis, Bioanalytics, Trends on sample handling and preparation, Chemical and bio-sensors, Field analysis-Mobile analytical instruments, Laboratory information management systems (LIMS), Miniaturized analytical systems (chips), Robotics and Automation, Quality control-quality assurance on analysis, Commercial developments and markets, Flow and micro-flow methodologies, Immunoassays, Electrophoretic separation techniques, Sampling techniques and strategies

Applications: Food Analysis, Environmental analysis, Biomedical (Clinical, Ecotoxicological) analysis, Pharmaceutical analysis, Material science (Nanomaterials), Archaeometry analysis, Industrial analysis.

A **special session** is going to be attributed to the applications of instrumental analytical methods on **food analysis** with emphasis to food safety, aroma compounds determination, packaging, novel foods etc.

Contributions from commercial organizations, including detailed descriptions of new instrumentation, Specific applications, Assessment of future commercial trends and opportunities.

Previous conferences

The recent past conferences were held in Chalkidiki (1999), Ioannina (2001), Thessaloniki (2003), Iraklion (2005), Patras (2007), Athens (2009), Chania (2011) and Thessaloniki (2013) with 250-300 scientific papers presented by scientists from all over the world at

each one. For the last 16 years IMA has provided an excellent framework for the presentation of new concepts, instruments, methods, systems, and applications in the area of modern chemical analysis.

Location

IMA-2015 will be held in Kalamata, Messinia prefecture at southeast Peloponnese. Particularly, it will take place in the conference center of Elite City Resort (Navarinou 2, 24100 Kalamata) which stands next to the Messinian Bay very close to the main areas of Kalamata. Located only four (4) km away from the center of Kalamata, the transfer is easy and fast. The port of the city, is only three (3) km away, the airport of Kalamata only twelve (12) km away, thus providing for easy access to hotel's facilities. Additionally, the central bus station is just 5 km away and there are taxi services, which will accommodate you back and forth.

Papers presentation

Scientific program will include plenary and keynote lectures, which will provide an up-to-date presentation of modern trends of Instrumental Methods of Analysis as well as of related subjects of general interest. Invited and plenary speakers should plan on a 25 minutes long talk followed by 5 minutes of discussion. Oral Presentations: presenting authors should plan on a 12 minutes long talk followed by 3 minutes of discussion. Presentations should be in Microsoft PowerPoint format (ppt or pptx file) or Adobe Acrobat Reader format (pdf file). The file should be electronically handed by the speaker to the Registration Desk at least one session before his presentation. Contributed papers describing original research work will be also presented as posters in order to promote efficient discussion on new scientific ideas and results. The presenting authors should hang their posters in the morning, before 10 am, and remove them in the evening of the corresponding day. The preferable dimensions for posters should be 80 x 120 cm (width x height). All posters are required to conform to portrait orientation. Posters should be clear and easy to read. Type size should be sufficiently large to allow people to read from 2-3 meters. All presentations should be in English. Poster and oral presentation will be accepted if at least one of the authors is registered and present at the conference for personal communication.

Best poster award

A competition for the best poster among the young scientists in each poster session will also take place. These awards will be given to recognize excellence in research and presentation. The winners will be announced during the Closing ceremony on 24th September at noon.

Journal publication

Participants are invited to submit manuscripts based on their presentations in one of the 6 journals (*Analytica Chimica Acta*, *Journal of Chromatography A*, *Microchemical Journal*, *Journal of Pharmaceutical and Biomedical Analysis*, *Food Chemistry*, *Materials Research Bulletin*), with the intention of publishing in a Multi-journal Virtual Special Issue (MJVS) that is dedicated to IMA2015 conference.

A Virtual Special Issue (VSI) is a concept which essentially rules out possible delays in publication for contributors to the special issue and will make this conference special issue more complete and accessible than it has ever been. Please see below its advantageous characteristics:

- Papers are published individually in regular journal issues at Science Direct as soon as they are accepted;
- Footnote indicating IMA-2015 conference will be included, and will link to the VSI;
- All accepted papers of the VSI will be hosted on journal homepage site of *Analytica Chimica Acta* – with links to the relevant papers at Science Direct;
- The VSI will include a preface, photos and/or videos, award information if any, of the conference.

Authors are suggested reading the scopes of these 6 journals carefully when selecting the best-fit journal for submission. On line submission directly to one of the above mentioned journals of MJVS with the indication “presented at IMA2015”.

Exhibition

Suppliers of analytical instrumentation and laboratory equipment will exhibit their latest offerings in the Exhibition Hall during the Conference. Official opening of the exhibition will take place on 21th September at 20:00. The exhibition area is adjacent to the lecture area and within the poster, coffee break and lunch areas in the Conference Center of Elite City Resort.

Social events

Welcome reception 20/9/2015 – Elite City Resort – Pool 20:30

The welcome cocktail will take place after the end of the Opening session in the registration place.

Archaeological site of Ancient Messini 22/9/2015 – Departure: Elite City Resort 08:30

Messene is a significant ancient city in terms of its size, form, and state of preservation. It possesses not only sanctuaries and public buildings, but also imposing fortifications, and

houses and tombs. It enjoys the advantage of never having been destroyed or covered by later settlements, and is located on an unspoiled inland site.

Olive Oil Factory 23/9/2015 – Departure: Elite City Resort 11:30

The visit to the facilities of Konstantopoulos S.A. “OLYMP” in the area of Thourio on the north of Kalamata will take place on Wednesday’s 23rd morning. The departure will be from the conference center.

Conference dinner 23/9/2015 – Porto Palace – Restaurant Trilogia 21:00

The Conference Dinner will be held on September 23rd at 21:00 in a local restaurant, **Trilogia**, located close to the seaside at a walking distance from the conference center. The menu will include a wide variety of traditional food, salads and drinks. Event will close with local traditional dances and a folklore party.

Post-conference excursion

Cave of Diros – Mani villages 24/9/2015 – Departure: Elite city Resort 08:30 – Return: approx. 17:30

The guided post-conference excursion to the Caves of Diros and traditional villages of Mani will take place on Friday 25th September. The caves of Diros, are located East of Kalamata. In the three caves, a unique experience traveling barely a subterranean river length 1,600 m. The magic of the color, and the beautiful shapes, formed by the stalactites and stalagmites makes a unique spectacle.

PROGRAM AT A GLANCE

Sunday 20 September 2015

| | |
|------------------------------------|-------------------|
| 16 ³⁰ -20 ³⁰ | Registration |
| 18 ⁰⁰ -18 ³⁰ | Opening ceremony |
| 18 ³⁰ -20 ³⁰ | Plenary lectures |
| 20 ³⁰ | Welcome reception |

Monday 21 September 2015

| | |
|------------------------------------|-------------------------------|
| 08 ³⁰ -09 ⁰⁰ | Registration |
| 09 ⁰⁰ -11 ⁰⁰ | Parallel Sessions |
| | Royal Cruise Hall-A |
| | Royal Cruise Hall-D |
| | Food Analysis 1 |
| | Food Analysis 2 |
| 11 ⁰⁰ -11 ³⁰ | Coffee break |
| 11 ³⁰ -13 ³⁰ | Parallel Sessions |
| | Royal Cruise Hall-A |
| | Royal Cruise Hall-D |
| | Food Analysis 3 |
| | Food Analysis 4 |
| 13 ³⁰ -14 ³⁰ | Lunch |
| 14 ³⁰ -15 ³⁰ | Poster Session 1 - Exhibition |
| 15 ³⁰ -17 ¹⁵ | Spectrometry 1 |
| 17 ¹⁵ -17 ⁴⁵ | Coffee break |
| 17 ⁴⁵ -19 ³⁰ | Electrochemistry 1 |
| 19 ³⁰ -21 ⁰⁰ | Poster Session 1 |
| 20 ⁰⁰ | Opening of Exhibition |

Poster Session 1

Food Analysis / Spectrometry

Tuesday 22 September 2015

| | |
|------------------------------------|---|
| 08 ³⁰ -13 ³⁰ | Visit to archaeological site of Messini |
| 13 ³⁰ -14 ³⁰ | Lunch |
| 14 ³⁰ -15 ¹⁵ | Poster Session 2 - Exhibition |
| 15 ¹⁵ -17 ¹⁵ | Parallel Sessions |
| | Royal Cruise Hall-A |
| | Royal Cruise Hall-D |
| | Mass Spectr./Chromatography 1 |
| | Mass Spectr./Chromatography 2 |
| 17 ¹⁵ -17 ⁴⁵ | Coffee break |
| 17 ⁴⁵ -19 ⁴⁵ | Mass Spectrometry |
| 19 ⁴⁵ -21 ⁰⁰ | Poster Session 2 - Exhibition |

Poster Session 2

Mass Spectrometry/Chromatography

Wednesday 23 September 2015

| | |
|------------------------------------|------------------------------------|
| 08 ³⁰ -09 ⁰⁰ | Registration |
| 09 ⁰⁰ -11 ⁰⁰ | Parallel Sessions |
| | Royal Cruise Hall-A |
| | Royal Cruise Hall-D |
| | Chromatography 1 |
| | Chromatography 2 |
| 11 ⁰⁰ -11 ³⁰ | Coffee break |
| 11 ³⁰ -13 ³⁰ | Visit to a local Olive Oil Factory |
| 13 ³⁰ -14 ³⁰ | Lunch |
| 14 ³⁰ -15 ¹⁵ | Poster Session 3 - Exhibition |
| 15 ¹⁵ -17 ¹⁵ | Materials Science/Spectrometry 2 |
| 17 ¹⁵ -17 ⁴⁵ | Coffee break |
| 17 ⁴⁵ -19 ¹⁵ | Archaeometry |
| 19 ¹⁵ -20 ¹⁵ | Poster Session 3 - Exhibition |
| 21 ⁰⁰ | Conference Dinner |

Poster Session 3

Materials Science/Electrochemistry/Environment



Thursday 24 September 2015

| | |
|------------------------------------|--------------------------------|
| 09 ⁰⁰ -10 ⁴⁵ | Environmental Analysis |
| 10 ⁴⁵ -11 ¹⁵ | Coffee break |
| 11 ¹⁵ -12 ³⁰ | Electrochemistry 2 |
| 12 ³⁰ -13 ³⁰ | Closing Ceremony/Poster Awards |

DETAILED PROGRAM

Sunday 20 September 2015

OPENING SESSION

(Royal Cruise Hall-A, Chair: J. Kapolos, M. Ochsenkühn)

18⁰⁰-18³⁰ Greetings - Addresses

18³⁰-19⁰⁰ Chemical imaging and analytical chemistry

IL01 F. Adams

19⁰⁰-19³⁰ Field Flow Fractionation: A versatile technique for the separation and characterization of food macromolecules

IL02 G. Karaiskakis

19³⁰-20⁰⁰ Analogy-based teaching in instrumental analysis

IL03 M.I. Karayannis, C.E. Efstathiou

20⁰⁰-20³⁰ NMR methodology developments in the analysis of complex mixtures in natural products and food chemistry: From metabolomics to in-cell NMR

IL04 I.P. Gerothanassis

20³⁰ Welcome reception

Monday 21 September 2015

PARALLEL SESSIONS

ORAL SESSION: FOOD ANALYSIS 1

(Royal Cruise Hall-A, Chair: D. Knopp, I. Gerothanassis)

9⁰⁰-9³⁰ Analytical approaches to evaluate structure – property relations of soluble cereal fibers and their impact to food product quality and physiological functionality

IL05 C. Biliaderis

9³⁰-9⁴⁵ A high-throughput SNP-genotyping method based on fluorescent microspheres for olive oil varietal identification

MO01 D.P. Kalogianni, C. Bazakos, L.M. Boutsika, M. Ben Targem, T.K. Christopoulos, P. Kalaitzis, P.C. Ioannou

9⁴⁵-10⁰⁰ Perspectives and opportunities in plant and food science research of synchrotron microscopy and spectroscopy techniques

MO02 D. Eichert

10⁰⁰-10¹⁵ DNA-based meat authenticity testing by a multianalyte fluorometric method

MO03 V.M. Myridaki, I.K. Kyriakou, D.P. Kalogianni, P.C. Ioannou, T.K. Christopoulos

10¹⁵-10³⁰ Antioxidant capacity of the extracts from heather (*Calluna vulgaris* L. Hull) flowers

MO04 K. Pyrzyńska, P. Drózdź

10³⁰-11⁰⁰ Luminescent methods for the evaluation of antioxidant activity of olive oil and other natural products

IL06 A.C. Calokerinos, R. Apak

11⁰⁰-11³⁰ Coffee Break

ORAL SESSION: FOOD ANALYSIS 2

(Royal Cruise Hall-D, Chair: E. Rosenberg, L. Farmakis)

9³⁰-9⁴⁵ New strategies of microbiological monitoring in food plants and water dispensers

MO05 L. Bolelli, E. Ferri, G. Lasi, S. Gozzi, R. Moretti, S. Girotti

9⁴⁵-10⁰⁰ Development of microemulsion electrokinetic chromatography method for the analysis of illegal fat-soluble foodstuff dyes

MO06 K. Petrů, J. Bradová, L. Pincová, M. Polášek

10⁰⁰-10¹⁵ Characterization of multifunctional *Haematococcus pluvialis* extracts and their application in beverage products

MO07 S. Papadaki, V. M. Christopoulou, C. Drosou, K. Tataraki, K. Kyriakopoulou, A. Pappa, M. Krokida

10¹⁵-10³⁰ Determination of physicochemical parameters as a function of time for physically adsorbed or chemisorbed aroma compounds on starch granules from different origin by inverse gas chromatography

MO08 K.A. Eftaxopoulou, L. Farmakis, A. Koliadima, G. Karaiskakis, J. Kapos

11⁰⁰-11³⁰ Coffee Break

PARALLEL SESSIONS

ORAL SESSION: FOOD ANALYSIS 3

(Royal Cruise Hall-A, Chair: C. Biliaderis, T. Varzakas)

11³⁰-12⁰⁰ Bioanalytical determination of mycotoxins in food samples – an overview of current concepts and trends

IL07 D. Knopp, R. Niessner

12⁰⁰-12¹⁵ Migration of specific metals in canned foods before and after opening. Validation of a new quality indicator for opened cans

MO09 G. Petropoulos, I. Passias, N. Thomaidis, C. Proestos

12¹⁵-12³⁰ Raman spectroscopy for the authentication of Greek extra virgin olive oil and adulteration with sunflower oil

MO10 A. Philippidis, M. Velegrakis

12³⁰-12⁴⁵ Fatty Acids composition of Greek PDO and Traditional Cheeses, a statistical analysis on their profile acquired by a GC/FID method

MO11 G. Karanikolopoulos, L. Kioupis, K. Papadopoulou, I. Mastrantoni

12⁴⁵-13⁰⁰ The application of FT-IR technique in characterizing food microencapsulation systems

MO12 C. Chranioti, A. Karamberi, L.A. Tsakanika, C. Tzia

13⁰⁰-13³⁰ Production model and international market for Greek table olives

IL08 D. Calderon, P. Konstantopoulos

13³⁰-15³⁰ Lunch – Poster Session 1 - Exhibition

ORAL SESSION: FOOD ANALYSIS 4

(Royal Cruise Hall-D, Chair: G. Karaiskakis, M. Krokida)

12⁰⁰-12¹⁵ NMR in dairy lipid research: Improving the fatty acid profile of sheep milk by olive cake supplementation

MO13 S. Symeou, C. Papaemmanouil, C.G. Tsiafoulis, O. Tzamaloukas, D. Miltiadou, I.P.

Gerothanassis

12¹⁵-12³⁰ Virgin Olive Oil: Examining authenticity with LC-HRMS workflows

MO14 N.P. Kalogiouri, N.S. Thomaidis

12³⁰-12⁴⁵ Proteomic-based choice and enzyme immunoassay of mammalian muscle marker for control of meat products authenticity

MO15 E.A. Zvereva, L.I. Kovalev, A.V. Ivanov, M.A. Kovaleva, A.V. Zherdev, S.S. Shishkin, A.B. Lisitsyn, I.M. Chernukha, B.B. Dzantiev

12⁴⁵-13⁰⁰ Differentiation of fresh orange juice prepared by Merlin cultivar according to geographical origin based on organic acid and sugar content using chromatographic and chemometric analyses

MO16 I.K. Karabagias, C. Nikolaou, I. Gatzias, S. Kontakos, A. Badeka, M.G. Kontominas

13³⁰-15³⁰ Lunch – Poster Session 1 - Exhibition

ORAL SESSION: SPECTROMETRY 1

(Royal Cruise Hall-A, Chair: L. Ebdon, A. Calokerinos)

15³⁰-16⁰⁰ Methods to identify and conquer matrix and spectral interferences in ICP emission spectrometry

IL09 G.M. Hieftje, G. Chan, Y. Cheung, A.J. Schwartz

16⁰⁰-16¹⁵ Elemental depth profiling with nanometer resolution using a novel laboratory set-up in the soft X-ray range

MO17 J. Baumann, C. Herzog, M. Spanier, D. Grötzsch, L. Lühl, K. Witte, A. Jonas, S. Günther, F. Förste, R. Hartmann, M. Huth, D. Kalok, B. Steigenhöfer, M. Krämer, T. Holz, R. Dietsch, L. Strüder, B. Kanngießer, I. Mantouvalou

16¹⁵-16³⁰ Identification and quantification of six polyvinyl chloride plasticizers by proton nuclear magnetic resonance in infusion medical devices

MO18 F. Feutry, S.Genay, M.Masse, C.Barthélémy, V.Sautou, B.Décaudin, P.Odou, N.Azaroual

16³⁰-16⁴⁵ Development of immunosensors based on optical waveguide lightmode spectroscopy (OWLS) technique for determining active substance in herbs

MO19 N. Adányi, K. Majer-Baranyi, E. Takács, B. Wang, I. Szendrő, A. Székács

16⁴⁵-17⁰⁰ Chemiluminometric biosensor for genotyping of single-nucleotide polymorphisms in methylenetetrahydrofolate reductase (MTHFR) gene

MO20 E.M. Spyrou, D.P. Kalogianni, S.S. Tragoulias, P.C. Ioannou, T.K. Christopoulos

17⁰⁰-17¹⁵ Microfluidics tubing system for mercury detection utilizing fluorescent sensor nanoparticles

MO21 J. Bell, E. Climent, M. Albrecht, K. Rurack

17¹⁵-17⁴⁵ Coffee Break

ORAL SESSION: ELECTROCHEMISTRY 1

(Royal Cruise Hall-A, Chair: M. Ochsenkühn, J. Barek)

17⁴⁵-18¹⁵ Voltammetric sensors in stripping procedures – past and present

IL10 A. Bobrowski

18¹⁵-18³⁰ Adsorptive stripping voltammetry of Cr(VI) in the presence of pyrogallol red using electrodes of HgFE, BiFE and SbFE

MO22 J.M. Navia, V. Arancibia, M. Gómez, C. Rojas, C. Nuñez

18³⁰-18⁴⁵ High sensitive determination of V(V) by catalytic adsorptive stripping voltammetry. Effect of sulfonic substituted ligand

MO23 C. Rojas-Romo, V. Arancibia

18⁴⁵-19⁰⁰ How alive can electrochemical DNA biosensors be?

MO24 V. Vyskočil, Z. Krejčová, K. Stávková, and A. Hájková

19⁰⁰-19¹⁵ Development of Electrochemical Sensing Devices for Caffeine Detection and Immunosensor Applications in the Food Industry

MO25 G.F. Duffy, E.J. Moore

19¹⁵-19³⁰ Chalcones as multifunctional antioxidants: a study of their interaction with copper ions

MO26 O. Serifi, M. Ochsenkühn-Petropoulou, A. Karantonis, A. Detsi

19³⁰-21⁰⁰ Poster Session 1 – Opening of the Exhibition

POSTER SESSION 1

FOOD ANALYSIS / SPECTROMETRY

(Royal Cruise Hall-B, Chair: E. Rosenberg, A. Gundlach-Graham, V. Sinanoglou, A. Vlessidis)

- P1-01 Dispersive liquid–liquid microextraction method development for isolation and preconcentration of pesticide residues from alcoholic beverages**
M. Andraščíková, M. Brišová, S. Hrouzková
- P1-02 Analysis of volatile compounds in virgin olive oils from four cultivars using HS-SPME-GC**
C.V. Antoniou, G.C. Koubouris
- P1-03 Sugar detection in sodas utilizing a fluorescent microfluidics sensor**
J. Bell, P. Ashokkumar, M. Albrecht, K. Rurack
- P1-04 Authentication of game meat through rare earth and trace element profile: The case of Limnos island wild rabbits**
G. Danezis, A.C. Pappas, E. Zoidis, C. Papachristidis, C. Vavvas, G. Papadomichelakis, I. Hadjigeorgiou, V. Brusic, C.A. Georgiou
- P1-05 Rare earth elements & actinides accumulation patterns in game meat, backyard & commercial rabbits**
G. Danezis, A. Tsagkaris, E. Zoidis, A.C. Pappas, C. Papachristidis, C. Vavvas, G. Papadomichelakis, I. Hadjigeorgiou, V. Brusic, C.A. Georgiou
- P1-06 Monitoring of tin and aluminum release from food packaging to packaged food**
P. Diviš, P. Šiler
- P1-07 Determination of taurine in energy drink by IC/PAD**
H. Farkaš, J. Banić-Simičić, D. Ujsasi, A. Plahi Bogнар, B. Marošanović
- P1-08 Sensitive determination of halogenated nitrogenous disinfection by-products in drinking water samples**
 Y. Kadmi, L. Favier, M. Gavrilescu, C. Vial, D. Wolbert
- P1-09 Simultaneous determination and quantification of polyphenol compounds, flavonoids, and oleuropein derivatives using the –OH 1H-NMR spectral region: Optimization of experimental conditions and application to oregano and olive leaf extracts**
 P. Charisiadis, V.G. Kontogianni, C.G. Tsiafoulis, A.G. Tzakos, I.P. Gerothanassis
- P1-10 DNA purification using a highly efficient microfluidic device with large capacity: Demonstration of DNA recovery from a few Salmonella bacteria cell lysate**
A.S. Kastania, K. Tsougeni, G. Papadakis, E. Gizeli, G. Kokkoris A. Tserepi, E. Gogolides
- P1-11 Authentication tests for milk products based on a chemiluminometric hybridization assay**
M. Kounelli, D.P. Kalogianni, P.C. Ioannou, T.K. Christopoulos

- P1-12 Volatile compounds in probiotic dry-fermented sausages**
M. Sidira, P. Kandyliis, L. Bosnea, M. Kanellaki, T. Varzakas, Y. Kourkoutas
- P1-13 Volatile compounds in probiotic yoghurts containing immobilized *Lactobacillus plantarum* 2035 on whey protein**
M. Sidira, M. Kiourtzidis, N. Chorianopoulos, C. Tassou, S. Kaloutsas, G. Mitropoulou, T. Varzakas, Y. Kourkoutas
- P1-14 Optimization of industrial pretreatment of *Spirulina platensis* cyanobacterium**
S. Papadaki, K. Kyriakopoulou, M. Krokida
- P1-15 Impact of feed supplementation with different natural antioxidants on fatty acid profile and color parameters of egg yolk lipid fraction**
D.Z. Lantzouraki, V.J. Sinanoglou, M. Goliomytis, M. Charismiadou, S.G. Deligeorgis, P. Zoumpoulakis
- P1-16 Detection of aflatoxin M1 in traditional local cheeses of Greece with a direct competitive ELISA**
A. Batrinou, C. Kapsali, I. Karachristou, K. Tampratzi, D.Z. Lantzouraki
- P1-17 Evaluation of the fatty acid profile in donkey's milk during lactation**
Th. Massouras, G. Alexiou
- P1-18 Composition, aromatic profile and coagulation properties of milk of goat graze in pasture of Algerian semi-arid areas.**
Bouguerra, S. Djebili, M. Barkat, Th. Massouras
- P1-19 Chemometrical development and comprehensive validation of a SPME/DI-GC-MS method for the determination of 21 important free and glycosidically bound aromatic compounds in wines. Application in Greek and international *Vitis vinifera* varieties**
M. Metafa, Th. Varzakas, A. Vlyssides, C. Israilides, A. Economou
- P1-20 Analytical challenges in investigating allergenic proteins in varieties of *Solanum lycopersicum***
R.T. Mócsai, A. Maczó, K. Majer-Baranyi, N. Adányi, P. Milotay, Zs. Bánfalvi, R. Tömösközi-Farkas
- P1-21 Examination of bioactive components and properties of aroma in paprika powders**
H. Molnár, M. Pék, R. Farkas Tömösköziné, N. Adányi
- P1-22 SERS and 2D-Fluorescence for the investigation of aminoacids and egg proteins**
A. Philippidis, Z.E. Papliaka, D. Anglos
- P1-23 A novel dispersive liquid-liquid microextraction gas chromatography-mass spectrometry method for the determination of selected biogenic amines in wine**
J. Płotka-Wasyłka, J. Namieśnik
- P1-24 Microextraction in conjunction with the derivatization—strategies for the determination of BAs in wines by chromatographic techniques**
J. Płotka-Wasyłka, J. Namieśnik

- P1-25 Studies on the synthesis of high added value products from *Nannochloropsis oceanica* using chromatographic and mass spectrometry techniques**
 M.G. Savvidou, Th.V. Lymperopoulou, K.P. Balta-Brouma, M. Michailidou, K. G. Magoulas, F.N. Kolisis
- P1-26 Effect of gamma radiation on the fatty acid profiles of sesame oil**
 D. Lantzouraki, P. Zoumpoulakis, I.F. Strati, G.-N. Nikolaou, S.M. Bratakos, V.J. Sinanoglou
- P1-27 Characterization of visceral oils from conventional and organically farmed *Sparus aurata*, *Dicentrarchus labrax* and *Diplodus puntazzo***
V.J. Sinanoglou, D.P. Houhoula, V.R. Kyrana, V.P. Lougovois
- P1-28 Seasonal variations in the lipid and fatty acid profiles of the smooth clam *Callista chione***
 C. Papaioannou, V.P. Lougovois, V.R. Kyrana, I.F. Strati, V.J. Sinanoglou
- P1-29 Analysis and classification of ham meat products according to meat type and processing, using colour and texture analysis methods**
 D. Xenogiannopoulos, G. Xenogiannopoulos, P. Zoumpoulakis, D. Cavouras, V.J. Sinanoglou
- P1-30 Determination of hydrolysed proteins' molecular weight in fish feeds using size exclusion chromatography and UV detection**
 G. Koulis, M. Dasenaki, N.S. Thomaidis
- P1-31 Novel NMR spin- chromatography method for the identification and quantification of glutathione in white wine**
 V.G. Kontogianni, C.G. Tsiafoulis, I.G. Roussis, I.P. Gerothanassis
- P1-32 Investigation on Greek white and red wines using optical absorption and Fluorescence spectroscopy in combination with Chemometrics.**
 E. Poulakis, A. Philippidis, M. Velegrakis
- P1-33 Determination of quinolones in fish muscle plus skin by ultra high-performance liquid chromatography with photo–diode array detection**
 V. Zonaras
- P1-34 A comparative study on maternal milk's lipid composition**
 G.-N. Nikolaou, V.J. Sinanoglou¹, D.Z. Lantzouraki, D. Cavouras, T. Boutsikou, D.D. Briana, A. Malamitsi-Puchner, P. Zoumpoulakis
- P1-35 Investigation of flavonoid enriched ration on chicken plasma metabolites**
 C. Fotakis, P.E. Simitzis, M. Goliomytis, S.G. Deligeorgis, P. Zoumpoulakis
- P1-36 Estimating the quality of red and white meat using chemometrics on fatty acids and lipid quality indices.**
V.J. Sinanoglou, C. Fotakis, I.F. Strati, P. Zoumpoulakis
- P1-37 Spectrophotometric determination of flavonoids by formation of silver nanoparticles**

E. Terenteva, V. Apyari, S. Dmitrienko, Yu. Zolotov

P1-38 Characterisation of Melanoidins and their metal complexes applying EPR and FTIR spectroscopic techniques

K. Bayer, M. Kaufmann, A. Hornemann, B. Beckhoff, L.W. Kroh

P1-39 Comparison of the scavenging activity of wines, teas and edible oils determined by the CL reaction of N,N-dimethyl-biacridylidene.

D.C. Christodouleas, A. Calokerinos, V. Garyfali, Ch. Fotakis, K.Papadopoulos

P1-40 Comparison of four FIA-CL methods for the evaluation of antioxidant activity of various natural products

D.C. Christodouleas, A. Calokerinos, V. Garyfali, Ch. Fotakis, K.Papadopoulos

P1-41 A chemiluminescent assay for the detection of allergens in foodstuffs

S. Christopoulou, D.P. Kalogianni, S. Karaiskou, P.C. Ioannou, Th.K. Christopoulos

P1-42 Quantitative Structure-Chemiluminescence Intensity Relationships of 4-substituted phenols acting as luminol signal enhancers

N. Kritikos, Y.L. Loukas and Y. Dotsikas

P1-43 Antimicrobial peptides and lipid-membranes interactions investigations in the Far-Infrared region

A. Hornemann, D. Eichert, A. Hoehl, M. Andersch, P. Emmer, B. Tiersch, M. Ryadnov, G. Ulm, B. Beckhoff

P1-44 The X-ray Fluorescence beamline at Elettra – Sincrotrone Trieste: new characterization opportunities for nano-structured materials

D. Eichert, L. Luehl, F. Brigidi, A. Gambitta, W. Jark

P1-45 Fluorescent detection of biothiols and SO₂ derivates via Michael addition reaction of it to isoxasole

M. Gómez, M.E. Aliaga, C. Irribarren, A. Cañete, E.G. Perez

P1-46 Formation of Au@Ag core-shell nanorods as an approach to spectrophotometric determination of catecholamines

M. Gorbunova, L. Zamurueva, V. Apyari, S. Dmitrienko

P1-47 Preliminary results of the chemical composition of deep sea sediments from the greater area of Santorini

S. Foteinis, N. Kallithrakas-Kontos, C. Anagnostou

P1-48 Sulphur Speciation by a Si-PIN X-ray detector

N. Kallithrakas-Kontos, R. Moschochoritou

P1-49 New possibilities for prediction of cereals' and pseudo-cereals' chemical and technological parameters by near-infrared spectroscopy

É. Kónya, T. Halasi, P. Forgó, Zs. Cserhalmi, N. Adányi, A. Kiss

P1-50 A new type of X-ray spectrometry UHV instruments at the SR facilities BESSY II, ELETTRA and SOLEIL

J. Lubeck, B. Boyer, B. Detlefs, D. Eichert, R. Fliegauf, D. Grötzsch, I. Holfelder, P. Hönicke, W. Jark, R. Kaiser, B. Kanngießner, A.G. Karydas, J.J. Leani, M.C. Lépy, L. Lühl, Y. Ménesguen, A. Migliori, M. Müller, B. Pollakowski, M. Spanier, G. Ulm, J. Weser, B. Beckhoff

P1-51 Optical waveguide lightmode spectroscopy technique-based immunosensor development for aflatoxin B₁ determination in spiced paprika samples

K. Majer-Baranyi, Zs. Zalán, M. Mörtl, A. Székács, I. Szendrő, N. Adányi

P1-52 The quantitative analysis of ternary mixtures of anhydrous crystalline CaCO₃ polymorphs using micro Raman spectroscopy

R. Ševčík, P. Mácová, M. Pérez-Estébanez

P1-53 Sequential injection method for determination of gamma-aminobutyric acid based on nanoparticle second order light scattering

S. Teerasong, A. Jinnarak, D. Nacapricha

P1-54 Multicommutation flow system for manganese speciation in water samples by solid phase extraction – flame atomic absorption spectrometry

A. Tobiasz, M. Sołtys, D. Dudek-Adamska, S. Walas

P1-55 Fingerprinting analysis of Romanian berries using TLC and UV-VIS spectrometry

I.-A. Sima

P1-56 Adulteration of extra virgin olive oils with seed oils studied with Optical Spectroscopy

A. Papadaki, A. Philippidis, M. Velegrakis

P1-57 Ligand-free cation-selective biomimetic sensors prepared from phospholipid-polydiacetylene mixed vesicles

V.A. Gatselou, D.L. Giokas, G.Z. Tsogas, A.G. Vlessidis

P1-58 Determination of dithiocarbamates with photochemically amplified chemiluminescence detection

V.A. Gatselou, D.L. Giokas, G.Z. Tsogas, A.G. Vlessidis

P1-59 Thiol-functionalized quantum dots as photoluminescent sensors for the determination and speciation of gold and silver nanoparticles after micelle mediated preconcentration

G. Z. Tsogas, D. L. Giokas, A.G. Vlessidis

P1-60 A metabolic and antioxidant profile study of herbal infusions and decoctions

Ch. Fotakis, D. Tsigrimani, Th. Tsiaka, I. Strati, C. Makris, D. Tagkouli, Ch. Proestos, V.J. Sinanoglou, P. Zoumpoulakis

P1-61 Determination of the Adulteration of Extra Virgin Olive Oil by Means of FTIR Spectroscopy

E.G. Barbounis, K. Tampouris, D. Georgantas

Tuesday 22 September 2015

08³⁰-13³⁰ Visit to archaeological site of Ancient Messini

13³⁰-15¹⁵ Lunch – Poster Session 2 – Exhibition

PARALLEL SESSIONS

ORAL SESSION

MASS SPECTROMETRY / CHROMATOGRAPHY 1

(Royal Cruise Hall-A, Chair: W. Frenzel, J. Kapolos)

15¹⁵-15⁴⁵ ICP MS in metallomics - state-of-the-art and perspectives

IL11 R. Lobinski

15⁴⁵-16⁰⁰ Wide-scope screening of polar emerging contaminants in environmental samples by HILIC-QToF-HR-MS/MS

TU01 A.A. Bletsou, A.A. Markatis, P. Gago Ferrero, N.S. Thomaidis

16⁰⁰-16¹⁵ Advanced GCMSMS analysis using a novel ionization technology and qTOF mass analyzer

TU02 A.A. Bisi, B. M. Carola Salvi, C.A. Patkin

16¹⁵-16³⁰ Volatile compounds of some aromatic plants of Algerian semi-arid' area by (HS-SPME) coupled to (GC/MS)

TU03 A. Bouguerra, Th. Massouras, N Zouaoui, M. Barkat

16³⁰-16⁴⁵ Impurity profiling of meglumine by HPLC-MS

TU04 F. Ferretti, C. Martano, L. Lattuada

16⁴⁵-17⁰⁰ NMR spin- chromatography in dairy lipid research

TU05 C. Papaemmanouil, S. Symeou, C.G. Tsiafoulis, D. Alivertis, O. Tzamaloukas, D. Miltiadou, A.G. Tzacos, and I.P. Gerothanassis

17⁰⁰-17¹⁵ Design characteristics of a post-column derivatization system for tetradoxin analysis

TU06 D. Tanis, P. Vareltzis, G. Nikolaidis and P.G. Rigas

17¹⁵-17⁴⁵ Coffee Break

ORAL SESSION

MASS SPECTROMETRY / CHROMATOGRAPHY 2

(Royal Cruise Hall-D, Chair: A. Sanz-Medel, N. Kallithrakas)

15⁴⁵-16⁰⁰ HPLC profiles of phenolic compounds present in olive oil by-products extracts

TU07 S. Chanoti, P. Siamandoura, C. Tzia

16⁰⁰-16¹⁵ Investigation of the Cr(VI) behavior in foods by HPLC – ICP MS

TU08 V. Vacchina, I. de la Calle, F. Séby

16¹⁵-16³⁰ The use of immobilized artificial membrane chromatography for modelling bioconcentration of pharmaceutical compounds in the environment

TU09 F. Tsopelas, C. Stergiopoulos, A. Tsantili- Kakoulidou, M. Ochsenkühn- Petropoulou

16³⁰-16⁴⁵ Multianalyte assay for prostate cancer-related gene quantification by hybridization on fluorescent microspheres

TU10 I.K. Kyriakou, K. Mavridis, D.P. Kalogianni, P.C. Ioannou, T.K. Christopoulos, A. Scorilas

16⁴⁵-17⁰⁰ The comparison of Capillary Electrophoresis and Ion Chromatography with Electro spray Ionization-Mass Spectrometry methods for thermal stability studies on ionic liquids

TU11 M. Pyschik, M. Winter, S. Nowak

17⁰⁰-17¹⁵ Conformational characterization of polyelectrolyte complexes using Ion Mobility-Mass Spectrometry

TU12 M. Atakay, C. Wesdemiotis, B. Salih

17¹⁵-17⁴⁵ Coffee Break

ORAL SESSION: MASS SPECTROMETRY

(Royal Cruise Hall-A, Chair: J. Szpunar, N. Thomaidis)

17⁴⁵-18¹⁵ Novel Plasma-MS instrumentation for P- and S- guided targeted proteomics and nm-scale depth-profile solid analysis

IL12 S. Diez Fernández, J. Ruiz Encinar, A. Sanz-Medel

18¹⁵-18³⁰ Using Ambient Mass Spectrometry source for the analysis of nanometer thick organic layers in nanoparticle.

TU13 A.A. Bisi, S. Reddy

18³⁰-18⁴⁵ Investigation of single-particle ICP-TOFMS as a tool for comprehensive sizing and counting of mixtures of engineered nanoparticles

TU14 A. Gundlach-Graham, A. Praetorius, J. Navratilova, B. Ramkorun-Schmidt, F. von der Kammer, D. Günther

18⁴⁵-19⁰⁰ Development of isolation of psychoactive compounds from plants using the microwave- and ultrasound-assisted extraction techniques

TU15 M. Woźniakiewicz, J. Nowak, M. Ciechomska, A. Woźniakiewicz, P. Kościelniak

19⁰⁰-19¹⁵ Wide-scope QSRR models to support suspect and non-target screening of polar compounds in HILIC - ESI(+) - LC-HRMS

TU16 R. Aalizadeh, N.S. Thomaidis

19¹⁵-19⁴⁵ Combined speciation techniques proof changes in the metallome and metabolome as a cause for transition-metal related neurodegeneration

IL13 B. Michalke, K. Neth

19⁴⁵-21⁰⁰ Poster Session 2 – Exhibition

POSTER SESSION 2

MASS SPECTROMETRY / CHROMATOGRAPHY

(Royal Cruise Hall-B, Chair: M. Woźniakiewicz, R. Aalizadeh, Th. Lympelopoulou, C. Tsiafoulis)

- P2-01 Two Temperature Sorption Strategy for Screening of Volatile Compounds in Barley and Wheat Malts by Method Based on Solid Phase Microextraction**
M. Adam, A. Eisner, K. Adámková, P. Bajerová, K. Ventura
- P2-02 A HPLC-MS/MS Method for the accurate quantification of Cyclopiazonic Acid using stable isotope as Internal Standard**
P. Ansari, G. Häubl
- P2-03 Trace elements in beers from Greek microbreweries by ICP-MS**
E. Bempi, S. Karavoltsos, A. Sakellari, A. Kaliora, E. Dassenakis, N. Kalogeropoulos
- P2-04 Application of dynamic headspace and GC-MS technique for the determination of oxygenated volatile organic compounds in industrial wastewater**
G. Boczkaj, P. Makoś, M. Momotko, D. Chruszczyk, A. Fernandes
- P2-05 Studies of VOC degradation using Advanced Oxidation Processes (AOP) by means of “GREEN” extraction method and GC-MS technique**
G. Boczkaj, P. Makoś, M. Momotko, D. Chruszczyk, A. Fernandes
- P2-06 Matrix solid-phase dispersion for the determination of antidepressants and antipsychotics in human hair by LC- Hybrid LTQ Orbitrap MS**
E. Trantopoulos, V. Boti, V. Boumba, T. Albanis
- P2-07 In-tube roasting combined with GC-MS profiling as new approach to evaluate the aroma potential of Tanzanian cocoa beans**
 A. De Winne, J. Van Durme
- P2-08 Development and validation of a novel LC-MS/MS method for the quantitative determination of brinzolamide in dried blood spots**
 A. Foivas, Y. Dotsikas, A. Malenović, N. Kostić, M. Božić, M. Knežević, Y.L. Loukas
- P2-09 Inductively Coupled Plasma-Mass Spectrometric analysis as a tool for Rare Earth Elements analysis: A case study on mineral processing of REE ores**
V. Angelatou, N. Xirokostas N., C.-A. Drosou, E.I.P. Drosos, D. Eliopoulos
- P2-10 Qualitative analysis of compounds in commercial fragrance mixture of essential oils (Rose Josephine) for preparation of the perfume using gas chromatography-mass spectrometry**
 S. Surmová, A. Eisner, M. Adam, P. Bajerová, T. Bajer K. Ventura

- P2-11 Highly efficient sample preparation and quantification of N-nitroso compounds in water samples using solid-phase extraction and ultra-performance liquid chromatography-tandem mass spectrometry**
Y. Kadmi, L. Favier, A. I. Simion, D. Wolbert
- P2-12 Improving the quality characteristics of marc spirits produced by adding dried figs**
P. Giannouzi, P. G. Demertzis, K. Akrida-Demertzi
- P2-13 Development of a sample preparation method for manganese speciation in plant**
E. Grygo-Szymanko, A. Tobiasz, A. Wisłocka, D. Dudek-Adamska, N. Miliszkiewicz, S. Walas
- P2-14 Early identification of etiological agents of fungal infection and assessment of susceptibility antifungal drug, amphotericin B, by advanced separation techniques in human blood**
M. Horká, K. Šlais, J. Šalplachta, F. Růžička, M. Tesařová, P. Karásek, M. Roth
- P2-15 Determination of multiclass pesticides in water samples combining Solid Phase Extraction (SPE) coupled to GC-MS and LC-MS. A case study: Louros River (N.W. Greece)**
M. Kapsi, Ch. Tsoutsi, T. Albanis
- P2-16 Determination of various pesticides in fresh waters by means of high resolution & high mass accuracy hybrid linear ion - trap - orbitrap mass spectrometry**
Ch. Nannou, V. Boti, M. Tsomi, G.Patakioutas, T. Albanis, G. Karras
- P2-17 Effect of the addition of berries in the antioxidant capacity of traditional Greek spirits**
A.K. Kosma, P.G. Demertzis, K. Akrida-Demertzi
- P2-18 MALDI-TOF MS in identification and discrimination of *Staphylococcus aureus* strains**
J. Šalplachta, F. Růžička, M. Horká
- P2-19 Analysis of glycoconjugates from primary brain tumors using a complex mass spectrometric methodology**
A.F. Serb, L. Bozin, A. Dema, M. Georgescu, E. Sisu, A.D. Zamfir
- P2-20 Correlations between arsenolipids, organic and inorganic forms of arsenic, mercury and selenium in muscles and cephalothoraxes of *Aristaeomorpha foliacea* shrimp.**
G. Soultani, V. Sele, R.R. Rasmussen, I. Pasiás, E. Stathopoulou, N. Thomaidis, M. Scoullou, J.J. Sloth
- P2-21 Determination of fatty acids and trace elements in muscles and cephalothoraxes of a Mediterranean red shrimp**
G. Soultani, E. Stathopoulou, M. Kostakis, N. Thomaidis, M. Scoullou, C. Jacobsen, J.J. Sloth

- P2-22 Preparation and evaluation of matrix-matched standards towards analysis of distribution of elements in historical bones by laser ablation inductively coupled plasma mass spectrometry**
 S. Walas, N. Miliszkiewicz, A. Tobiasz, E. Grygo-Szymanko
- P2-23 UHPLC-MS/MS quantitative profiling of tryptophan related neuroactive substances in human serum and cerebrospinal fluid**
 E. Hényková, H. Příkrylová Vránová, P. Amakorová, T. Pospíšil, A. Zukauskaite, M. Vlčková, L. Urbánek, O. Novák., P. Kaňovský, M. Strnad
- P2-24 MAE/UHPLC-TOF-MS as a method for determination of carbamazepine and its metabolite in autopsy materials**
 S. Lendor, P. Kościelniak, R. Wietecha-Posłuszny, A. Woźniakiewicz, M. Zawadzki
- P2-25 Simultaneous quantitative determination of allergic ingredients in oxidative hair dyes**
J.H. Ahn, R.Y. Kim, C.W Park
- P2-26 Novel bitumen derived stationary phases for gas chromatography**
G. Boczkaj, M. Momotko, D. Chruszczyk, P. Makoś
- P2-27 Application of monolithic material for determination of iohexol in serum samples by capillary liquid chromatography**
P. Chaisuwan, T. Chaloeusuwiwattanakan, D. Nacapricha, P. Wilairat
- P2-28 Development of an automated method for methylxanthines determination by gradient–elution flow–injection chromatography**
P. Chorti, A. Economou
- P2-29 Development and validation of a low–pressure chromatography method for the rapid determination of 4 parabens in cosmetic products**
 M. Barbatsi, P. Chorti, A. Economou
- P2-30 Simultaneous capillary electrophoretic analysis of inorganic anions and cations in sweat samples as a novel approach in cystic fibrosis diagnosis**
P. Ďurč, M. Greguš, F. Foret, J. Skříčková, E. Pokojová, L. Homola, M. Dastych, H. Vinohradská, P. Kubáň
- P2-31 Novel portable capillary electrophoretic instrument for analysis of very small samples and its application in the analysis of exhaled breath condensate.**
M. Greguš, F. Foret, P. Kubáň
- P2-32 A new capillary electrophoretic method for determination of oxidized and reduced glutathione in non-invasively acquired biological samples**
J. Hodáková, J. Preisler, F. Foret, P. Kubáň
- P2-33 C-reactive protein in viral and bacterial infections**
 R.F. Mătieș

- P2-34 Chiral Amino Acid Ester-Based Ionic Liquids: Their Utility as Additives in Capillary Electrophoresis for Improved Chiral Separations**
M. C. Mavroudi, C.P. Kapnissi-Christodoulou
- P2-35 Determination of boiling point distribution by means of chromatographic techniques - standard test methods and new developments**
M. Momotko, D. Chruszczyk, P. Makoś, G. Boczkaj
- P2-36 Multi-applicational character of silanized silica gel as stationary phase for gas chromatography**
M. Momotko, P. Makoś, D. Chruszczyk, G. Boczkaj
- P2-37 Application of Hydrophilic Interaction Liquid Chromatography (HILIC) in the Separation and Analysis of Cathinone Regio-Isomers using HPLC**
E.Y. Santali, D.G. Watsona, O.B. Sutcliffe
- P2-38 Modern Separation of Liposoluble Vitamins in Clinical Research**
D. Solichová, L. Kujovská Krčmová, J. Plíšek, J. Aupartová, E. Kasalová, B. Honegrová, P. Solich
- P2-39 An improved QSAR model for explaining the blood–brain barrier permeability mechanisms**
R. Aalizadeh, N.S. Thomaidis
- P2-40 Magnetic solid phase extraction based on magnetic hypercrosslinked polystyrene for determination of tetracycline antibiotics in waters with HPLC**
V.V. Tolmacheva, E.V. Kochuk, V.V. Apyari, S.G. Dmitrienko
- P2-41 Optimization of a RP-HPLC/UV-Vis technique for the separation of the individual heavy and light rare earths from red mud after selective extraction/backstripping processes**
L.-A. Tsakanika, M. Ochsenkühn-Petropoulou
- P2-42 Efavirenz determination in samples obtained in transport studies using HPLC with UV detection**
L. Zelena, J. Reznicek, M. Ceckova, H. Sklenarova
- P2-43 Development and validation of HPLC methods for the determination of amino acids in pharmaceutical formulation based on precolumn derivatization and Vis detection and ion-exchange separation and chemiluminescence detection**
D.C. Tsikna, A. Economou, M. Koupparis
- P2-44 Fat droplets characterization of synthetic milk emulsions at various casein concentrations (Cas), by the SdFFF method**
A. Vagena, G. Karaiskakis, J. Kapolos, A. Koliadima

Wednesday 23 September 2015

PARALLEL SESSIONS

ORAL SESSION: CHROMATOGRAPHY 1

(Royal Cruise Hall-A, Chair: B. Michalke, A. Pappa)

- 9⁰⁰-9³⁰ Comprehensive Two Dimensional Liquid Chromatography – Coming of Age?**
IL14 E. Rosenberg
- 9³⁰-9⁴⁵ Potential of capillary electrophoresis in clinical diagnosis and monitoring**
WE01 P. Kubáň
- 9⁴⁵-10⁰⁰ Cadmium and mercury speciation in water hyacinth using HPLC-ICP-AES based approach**
WE02 T.E. Romanova, O.V. Shuvaeva
- 10⁰⁰-10¹⁵ Measurement of acid-soluble aldehydes and alcohols derived from lignin using HPAEC-PAD**
WE03 N. Anders, H. Humann, A. C. Spieß
- 10¹⁵-10³⁰ Application of analytical distillation tools for the sample production of lube base oil**
WE04 A. George, M. Berthod, N. Chandak, M. Nasser Al Shebli
- 10³⁰-11⁰⁰ Membrane-based sample preparation techniques for chromatographic analysis**
IL15 W. Frenzel

11⁰⁰-11³⁰ Coffee Break

ORAL SESSION: CHROMATOGRAPHY 2

(Royal Cruise Hall-D, Chair: R. Lobinski, M. Karayannis)

- 9³⁰-9⁴⁵ Incurred Sample Reanalysis: Considerations on the novel regulatory requirement in bioanalysis**
WE05 Y. Dotsikas
- 9⁴⁵-10⁰⁰ 3 Years of stirring-assisted lab-in-syringe: Development, applications, and potentials**
WE06 B. Horstkotte, P. Solich
- 10⁰⁰-10¹⁵ Fast method for the determination of residual solvents in radiopharmaceutical products**
WE07 M. Mihon, C. Tuta, A.C. Ion, D. Niculae, V. Lavric
- 10¹⁵-10³⁰ Different approaches to determination of acid dissociation constants of warfarin and**

hydroxywarfarins using capillary electrophoresis

WE08 M. Woźniakiewicz, P. Nowak, M. Mitoraj, P. Olechowska, P. Kościelniak

11⁰⁰-11³⁰ Coffee Break

11³⁰-13³⁰ Visit to a local Olive Oil Factory

13³⁰-15¹⁵ Lunch – Poster Session 3 – Exhibition

ORAL SESSION: MATERIALS SCIENCE / SPECTROMETRY 2

(Royal Cruise Hall-A, Chair: G. Hieftje, F. Adams, A. Koliadima)

15¹⁵-15⁴⁵ Materials characterization at the nanoscale by X-ray spectrometry

IL16 B. Beckhoff, P. Hönicke, I. Holfelder, J. Lubeck, M. Müller, A. Nutsch, B. Pollakowski, C. Streeck, R. Unterumsberger, J. Weser

15⁴⁵-16⁰⁰ Optimizing biosensors labels components and their discrimination efficiency using SEIRA methodology

WE09 A. Hornemann, D. Eichert, S. Flemig, G. Ulm, B. Beckhoff

16⁰⁰-16¹⁵ Surface functionalization of sol-gel grown NiO thin films by Palladium nanoparticles for Hydrogen gas sensing

WE10 I. Sta, M. Jlassi, M. Kandyła, M. Hajji, P. Koralli, M. Kompitsas, H. Ezzaouia

16¹⁵-16³⁰ Hydration study of oil well cements and the relation with their chemical and physical characteristics

WE11 D. Velissariou, N. Katsiotis, P. Tsakiridis, M. Beazi-Katsioti

16³⁰-16⁴⁵ Synthesis and characterization of Paramagnetic Fe₃O₄ nanoparticles @ graphene oxide nanohybrid material

WE12 D. Karampatsos, A. Ntziouni, G. Efthymiou, K. Fujisawa, M. Terrones and K. Kordatos

16⁴⁵-17¹⁵ Atomic fluorescence spectroscopy – analytical curiosity or useful tool

IL17 L. Ebdon

17¹⁵-17⁴⁵ Coffee Break

ORAL SESSION: ARCHAEOMETRY

(Royal Cruise Hall-A, Chair: B. Beckhoff, K. Ochsenkühn)

17⁴⁵-18¹⁵ Tales of Archaeometry from Anatolia

IL18 O.Y. Ataman, Ü. Muşkara, M. Aydın

18¹⁵-18⁴⁵ Contribution of analytical chemistry in environmental and cultural physical sciences

IL19 J.A. Stratis, H. Hasa, M.H. Mahmoud , C. Makarona, E. Daftsis, N. Kantiranis, El. Charalampous, A.C. Charalambous, D.N. Papadopoulou, A.M.A. Mousa, N. Tsirliganis

18⁴⁵-19¹⁵ The use of instrumental analysis for investigations in archeology and history of arts: Some cases with exceptional interest for the society

IL20 M.I. Karayannis

19¹⁵-20¹⁵ Poster Session 3 –Exhibition

21⁰⁰ Conference Dinner

**POSTER SESSION 3: MATERIALS SCIENCE
ELECTROCHEMISTRY/ENVIRONMENT**

(Royal Cruise Hall-B, Chair: K. Kordatos, D. Eichert, F. Tsopelas, L. Tsakanika)

- P3-01 Graphene oxide-based sensing system for detection of double-stranded DNA**
A. Giannakopoulos, I.K. Kyriakou, D. Tasis, D.P. Kalogianni, K. Papagelis, P.C. Ioannou, Th.K. Christopoulos
- P3-02 Formation of graphene nanosheets from graphene oxide thin films via one-step heat treatment**
D. Karamatsos, A. Ntziouni, G. Efthymiou, K. Kordatos
- P3-03 Selective fractionation of crude oil by means of separation techniques for analytical and preparative applications – a case of asphaltenes**
M. Momotko, D. Chruszczyk, P. Makoś, G. Boczka
- P3-04 Determination of thiocyanate and other inorganic ions in placenta samples**
S. Narkowicz, Ż. Polkowska, B. Kiełbratowska, J. Namieśnik
- P3-05 Incorporation of endogenous olive oil compounds in olive oil w/o food nanoemulsions without co-surfactant and study of their properties and stability**
 M. Katsouli, V. Polychniatou, C. Tzia
- P3-06 Nanomaterials characterization by DLS, AF4-MALLS and SP-ICP-MS in consumer products**
 I. De La Calle, M. Menta, M. Klein, V. Vacchina, F. Séby
- P3-07 Identification of superior ethanol tolerant industrial yeasts using droplet microfluidics**
Y. Vervoort, R.S. Wiederkehr, T. Stakenborg, P. Fiorini, L.Lagae, K.J. Verstrepen
- P3-08 A study of the determination of Co(II) by adsorptive stripping voltammetry at disposable screen-printed electrodes modified with a Bi precursor**
 M. Maczuga, A. Economou, A. Bobrowski, M. Prodromidis
- P3-09 Application of monolithic material for determination of iohexol in serum samples by capillary liquid chromatography**
P. Chaisuwan, T. Chaloeomsuwattanakan, D. Nacaprich, P. Wilairat
- P3-10 Microfluidic device integrated with screen printed graphene based-electrochemical sensor for glutathione detection**
 C. Karuwan, W. Pimpao, A. Wisitsoraat, T. Maturos, P. Chaisuwan, D. Nacapricha, A. Tuantranont
- P3-11 Determination of Sudan I in the presence of Sunset Yellow by adsorptive stripping voltammetry**
M. Gómez, V. Arancibia, C. Rojas M.E. Aliaga
- P3-12 Study of the Interaction of 4-Nitrobiphenyl with DNA at a Hanging Mercury Drop Electrode**

E. Horakova, V. Vyskocil, J. Barek

P3-13 Electrochemical biosensors based on minireactors with various types of amalgam and silica powders for flow systems

O. Josypčuk, B. Josypčuk

P3-14 Application of the general system of phenomenological peak models construction

S.V. Romanenko, E.V. Larionova

P3-15 Potentiometric biosensing applications using lab-made electrochemical sensors based on lipid stabilized films in contact with two different nano-electrodes

G.-P. Nikoleli, V.N. Psychoyios, N. Tzamtzis, T. Varzakas

P3-16 Effect of pyrrolidine dithiocarbamate and diethyl dithiophosphate on the determination of arsenic by adsorptive stripping voltammetry

C. Núñez, V. Arancibia

P3-17 Chiral Cavity Ring-Down Polarimetry: New methods for ultrasensitive measurements of chirality

A. Papadaki, D. Sofikitis, A. Spiliotis, G. Katsoprinakis, B. Loppinet, T.P. Rakitzis

P3-18 Acid-base properties of the pH indicators into polymethacrylate matrix

N. Gavrilenko, N. Saranchina, A. Sukhanov, I. Mikheev, M. Proskurnin

P3-19 The transparent of optical sensors PEG-PMMA on xanthene dyes

N. Gavrilenko, N. Saranchina, M. Gavrilenko

P3-20 Monitoring methodology of selected groups of VOCs in industrial wastewater – a review

G. Boczkaj, P. Makoś, M. Momotko, D. Chruszczyk, A. Fernandes

P3-21 The potentialities of atomic absorption techniques based on the high-resolution continuous source for environmental analysis

M.Yu. Sinitsyn, A.G. Borzenko

P3-22 Continuous measurement of water soluble components of atmospheric aerosols

P. Mikuška, L. Čapka, A. Kořínková, Z. Večeřa

P3-23 A Portable device for fast analysis of explosives in the environment

L. Čapka, Z. Večeřa, P. Mikuška, J. Šesták, V. Kahle, A. Bumbová

P3-24 Influence of surface tension of simulated pulmonary fluids on bioavailability of metals in urban aerosol and vehicle exhaust

P. Coufalík, P. Mikuška, K. Křůmal, M. Vojtíšek, T. Matoušek, Z. Večeřa

P3-25 A universal analyzer for large volume preconcentration of nanomolar iron(ii) from seawater on renewable sorbent

B. Horstkotte, P. Chocholouš, P. Solich¹

P3-26 Optimizing the determination of antimony, arsenic and chromium in drinking water by graphite furnace atomic absorption spectrometry

N. Tziarou, E. Kaprara, M. Mitrakas

P3-27 Application of in-situ passive flux samplers (PFSs) in the field of estimating the emission flux of volatile organic compounds emitted from laminated wood-based materials and floor coverings

M. Marć, J. Namieśnik, B. Zabiegała

P3-28 The estimation of total volatile organic compounds emissions generated from peroxide cured natural rubber/polycaprolactone blends

K. Formela, M. Marć, J. Namieśnik, B. Zabiegała

P3-29 Tar composition in biogas depending on gasification conditions

S. Osipovs

P3-30 Determining the isotopic composition of nitrate in sediments in the gulf of Riga

S. Osipovs, A. Skute, D. Vardanians

P3-31 Heavy metal pollution of pond sediments

K.S. Patel, N.S. Dahariya, Y. Nayak, N.K. Jaiswal, L. Matini, L. Borgese, A. Gianoncelli, E. Bontempi

P3-32 Investigation of the adsorption of gaseous pollutants into various aquatic environments at different temperatures

D. Sevastos, A. Koliadima

P3-33 New environmental and biological reference materials for persistent organic pollutants such as PAHs and PCBs compounds

M. Słomińska, B. Zabiegała, G. Bajger-Nowak, M. Marć, P. Konieczka, J. Namieśnik

P3-34 Determination of lead in drinking water: Exploring the potential of in-syringe analysis for automation of direct-immersion single-drop microextraction

I. Šrámková, B. Horstkotte, K. Fikarová, H. Sklenářová, P. Solich

P3-35 Automated control monitoring of the content of pH, Cl⁻, NO₃⁻ ions in the wastewater by ionometry

A.G. Kagiroy, A.N. Vtorushina, D.A. Kalashnikova

P3-36 Solid phase extraction of lead by a nanosized urchin-like NiCo₂O₄ adsorbent prior to determination FAAS

E. Yavuz, Ş. Tokaloğlu, H. Şahan, Ş. Patat

P3-37 Separation and pre-concentration of beryllium from street sediment and water samples by tannic acid functionalised graphene aerogel prior to GFAAS determination

E. Yavuz, Ş. Tokaloğlu, H. Şahan, Ş. Patat

P3-38 Automation of drug transport monitoring using sequential injection manifold

L. Zelená, E. Lopes, M. Segundo, M. Miró, L. Hyršová, P. Pávek⁵, H. Sklenářová

P3-39 Physical and Chemical Characteristics of a typical Greek Refuse Derived Fuel

D. Bakirtzis, P. Danias, C. Michalopoulos, V. Tsapara and S. Liodakis

P3-40 The effects on auto-ignition of Petcoke mixtures with Refuse Derived Fuel

D. Bakirtzis, P. Danias, V. Tsapara, C. Michalopoulos and S. Liodakis

P3-41 Assessment of the synergistic fire-retardant effect of a new gel-carbonate mineral mixture in a large-scale test

D. Bakirtzis, V. Tsapara, D. Vorisis, S. Liodakis and P. Joseph

Thursday 24 September 2015

ORAL SESSION: ENVIRONMENTAL ANALYSIS

(Royal Cruise Hall-A, Chair: O. Ataman, J. Stratis)

- 9⁰⁰-9¹⁵ New matrix - free reference materials in the form of optical fibers for benzene and toluene analysis**
- TH01 M. Słomińska, P. Konieczka, J. Namieśnik
- 9¹⁵-9³⁰ A joint research project for the production and certification of matrix reference materials for environmental analysis**
- TH02 A. Isleyen, J. Vogl, N. Scrundric, A. Jotanovic, T. Näykki, M. Horvat, A. Zoń, E. Bulska, M. Ochsenkuhn- Petropoulou, S.Z. Can, M. Bilsel, K. Hafner, N. Perkola, B. Ari, M. Tunç, B. Binici
- 9³⁰-9⁴⁵ Phase ratio variation approach to quantify adsorption behavior of volatile organic compounds in Nalophane sampling bags**
- TH03 J. Van Durme
- 9⁴⁵-10⁰⁰ PM10 emissions: The importance of biomass type and combustion conditions**
- TH04 A. Zosima, M. Ochsenkühn-Petropoulou
- 10⁰⁰-10¹⁵ Decision making in sewage sludge management**
- TH05 M. Malioka, E. Darakas, A. Kungolos and D. Latinopoulos
- 10¹⁵-10³⁰ Influence of elevated pH and strong organic load presence on Granular Activated Carbon's bromate removal ability**
- TH06 F.A. Megalopoulos, M.T. Ochsenkühn-Petropoulou
- 10³⁰-10⁴⁵ Optimizing magnetic nanoparticles for drinking water technology: The case of Cr(VI)**
- TH07 E. Kaprara, M. Mitrakas, N. Andritsos and K. Simeonidis

10⁴⁵-11¹⁵ *Coffee Break*

ORAL SESSION: ELECTROCHEMISTRY 2

(Royal Cruise Hall-A, Chair: A. Bobrowski, F. Tsopeles)

- 11¹⁵-11³⁰ Non-traditional electrode materials for voltammetric and amperometric monitoring of biologically active organic compounds**
- TH08 J. Barek, J. Fischer, J. Wang
- 11³⁰-11⁴⁵ A new electrochemical approach for determination of antihypertensives in pharmaceuticals and biological samples based on boron-doped diamond sensor**
- TH09 K. Cinková, Ľ. Švorc

11⁴⁵-12⁰⁰ New method for glass electrode internal calibration in the determination of functional groups of humic substances

TH10 I. Boal-Palheiros

12⁰⁰-12¹⁵ Derivative spectroscopic determination of enrofloxacin in some natural samples

TH11 Ch.M. Rashid, N.A. Fakhre, U.K. Ahmed

12¹⁵-12³⁰ A novel respirometer for determination of compost stability

TH12 C. Tsiodra, A. G. Vlyssides

12³⁰-13³⁰ Closing ceremony – Poster awards

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