2nd European Sample Preparation e-Conference

Joint online events | 14 - 16 March, 2022

1st Green and Sustainable Analytical Chemistry e-Conference

Organized by the EuChemS-DAC Sample Preparation Study Group and Network

Programme

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Scientific Programme at a glance

Please mind that the **detailed programme is scheduled for CET** (Belgium, Croatia, Czech Republic, Denmark, France, Germany, Italy, Norway, Poland, Serbia, Slovenia, Spain, and Switzerland). The schedule for **GMT** (Portugal, and the UK) and **EET** (Cyprus and Greece) is also indicated here. For Turkey **EET+1h** should be applied. Non-European participants are advised to calculate their local time by using the GMT.

Monday, 14 March 2022

EuSP2022

CET	Monday, 14 March 2022	GMT	EET
09:00	EuSP 2022 Opening Session	08:00	10:00
09:10	Plenary Lecture	08:10	10:10
09:35	Oral Session-O1	08:35	10:35
10:35	Break	09:35	11:35
10:50	Oral Session-O2	9:50	11:50
12:10	Oral Session-Y-A: Young Scientists	11:10	13:10
13:10	Poster Sessions A & B	12:10	14:10
14:00	Plenary Lecture	13:00	15:00
14:25	Oral Session-O3	13:25	15:25
15:25	Break	14:25	16:25
15:40	Oral Session-O4	14:40	16:40
17:00	One-to-one meetings	16:00	18:00
17:10		16:10	18:10

Tuesday, 15 March 2022

EuSP2022

GSAC2022

CET	Tuesday, 15 March 2022	GMT	EET
09:00	Oral Session-O5	08:00	10:00
10:30	Break	09:30	11:30
10:45	Oral Session-O6	09:45	11:45
12:00	Oral Session-Y-B: Young Scientists	11:00	13:00
13:00	Poster Sessions C & D & E	12:00	14:00

		GMT	EET
14:00	Opening Ceremony GSAC	13:00	15:00
14:10	Plenary Lecture Common EuSP | GSAC	13:10	15:10
14:40	EuSP | GSAC Common Oral Session O-A	13:40	15:40
15:20	Break	14:20	16:20
15:35	EuSP | GSAC Common Oral Session O-B	14:35	16:35
17:10 17:20	One-to-one meetings	16:10 16:20	18:10 18:20

Wednseday, 16 March 2022

EuSP2022

CET	Wednesday, 16 March 2022	GMT	EET
09:00	Oral Session- F-OP-1	08:00	10:00
10:20	Break	09:20	11:20
10:30	Oral Session- F-OP-2	9:30	11:30
12:00	Satellite Event – Common EuSP | GSAC		
13:00	Round Table Discussion	12:00	14:00
14:00	Oral Session-Y-C: Young Scientists	13:00	15:00
15:10	Sample Preparation Summer School	14:10	16:10
15:20	Break	14:20	16:20
15:35	EuSP | GSAC Common Oral Session O-C		
17:20	EuSP | GSAC Closing Ceremony and Awards		

GSAC2022

CET	Wednesday, 16 March 2022	GMT	EET
09:00	Plenary Lecture	08:00	10:00
9:30	Oral Session-I	8:30	10:30
10:45	Break	9:45	11:45
11:00	Oral Session-II	10:00	12:00
	Satellite Event – Common EuSP | GSAC	11:00	13:00
13:00	Poster Sessions 1 & 2 & 3 & 4	12:00	14:00
14:00	Oral Session-III	13:00	15:00
15:25	Break	14:25	16:25
	EuSP | GSAC Common Oral Session O-C	14:35	16:35
	EuSP | GSAC Closing Ceremony and Awards	16:20	18:20

Scientific Programme – detailed schedule

The programme schedule is given in CET

EuSP2022 — Monday, 14 March 2022

09:00 - 9:10	**Opening Session:** **E. Psillakis,** *Head of EuChemS-DAC Sample Preparation Study Group and Network, Technical University of Crete, Greece* **Stig Pedersen-Bjergaard,** *University of Oslo, Norway* **Sibel A. Ozkan,** *Ankara University, Faculty of Pharmacy, Ankara, Turkey*
09:10 - 9:35	**PL-1. Origami-paper device for rapid diagnosis and wastewater surveillance** **Z. Yang,** Y. Pan, Q. Hui. *Cranfield University, Cranfield, MK43 0AL, United Kingdom*
Oral Session O-1	**Advances in sample preparation I**
09:35 - 09:55	**O-1. Is 3D Printing Revolutionizing the Way that Sample Preparation is Being Performed?** **M. Miró**[1], D.J. Cocovi-Solberg[2], E.J. Carrasco-Correa[3] *(1) FI-TRACE group, Department of Chemistry, University of the Balearic Islands, Carretera de Valldemossa km 7.5, E-07122 Palma de Mallorca, Spain,* *(2) Institut für Analytische Chemie, University of Natural Resources and Applied Life Science, Muthgasse 18, 1190 Vienna Austria* *(3) CLECEM Group, Department of Analytical Chemistry, University of Valencia, C/ Doctor Moliner, 50, E-46100, Burjassot, Valencia, Spain*
09:55 - 10:15	**O-2. Smart Samplers for LC-MS Based Protein Analysis** **Léon Reubsaet,** Trine Grønhaug Halvorsen *University of Oslo, Department of Pharmacy, PO Box 1068 Blindern, 0316 Oslo, Norway*
10:15 - 10:35	**O-3. Spotlighting Solid phase Microextraction on Biological Analysis and New Materials** **G. Ouyang**[1,2,3] *(1) MOE Key Laboratory of Aquatic Product Safety/KLGHEI of Environment and Energy Chemistry, School of Chemistry, Sun Yat-sen University, Guangzhou, 510275, China,* *(2) Chemistry College, Center of Advanced Analysis and Gene Sequencing, Zhengzhou University Kexue Avenue 100, Zhengzhou, 450001, China* *(3) Guangdong Provincial Key Laboratory of Chemical Measurement and Emergency Test Technology, Institute of Analysis, Guangdong Academy of Sciences (China National Analytical Center, Guangzhou), Guangzhou 510070, China*
10:35 - 10:50	**Coffee Break**

Oral Session O-2	Advances in sample preparation II

10:50 - 11:10

O-4. Electromembrane Extraction – Towards Implementation in the Analytical Routine Laboratory

S. Pedersen-Bjergaard[1,2]

(1) Department of Pharmacy, University of Oslo, P.O. Box 1068 Blindern, 0316 Oslo, Norway,

(2) Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen, Universitetsparken 2, 2100 Copenhagen, Denmark

11:10 - 11:30

O-5. Solventless Microextraction Techniques for Water Analysis

T.C. Schmidt, L.K. Tintrop, N. Lorenzo-Parodi, W. Kaziur-Cegla, N. Stojanović, A. Salemi, M.A. Jochmann

Instrumental Analytical Chemistry and Centre for Water and Environmental Research (ZWU), University of Duisburg-Essen, Universitätsstraße 5, 45141 Essen, Germany.

11:30 - 11:50

O-6. Microplastics Determination in Complex Samples: Exploring Connections Between Environmental Compartments

J. Hernández-Borges[1,2], J. González-Sálamo[1,2,3], C. Hernández-Sánchez[2,4], F.J. Díaz-Peña[5], C. Villanova-Solano[1,2], R. Pérez-Reverón[1], M. Sevillano-González[1].

(1) Departamento de Química, Unidad Departamental de Química Analítica, Facultad de Ciencias, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, s/n, 38206, San Cristóbal de La Laguna, Spain,
(2) Instituto Universitario de Enfermedades Tropicales y Salud Pública de Canarias, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, s/n, 38206, San Cristóbal de La Laguna, Spain
(3) Department of Chemistry, Sapienza University, P.le Aldo Moro 5, 00185, Rome, Italy
(4) Departamento de Obstetricia y Ginecología, Pediatría, Medicina Preventiva y Salud Pública, Toxicología, Medicina Forense y Legal y Parasitología, Área de Medicina Preventiva y Salud Pública, Escuela Politécnica Superior de Ingeniería, Sección de Náutica, Máquinas y Radioelectrónica Naval, Universidad de La Laguna (ULL), Vía Auxiliar Paso Alto, 2, 38001, Santa Cruz de Tenerife, Spain
(5) Departamento de Biología Animal, Edafología y Geología, Facultad de Ciencias, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, s/n, 38206, San Cristóbal de La Laguna, Spain

11:50 - 12:10

O-7. Recent Developments in Paper-Based Sorptive Phases

R. Lucena, S. Cárdenas

Affordable and Sustainable Sample Preparation (AS_2P) Research Group, Departamento de Química Analítica, Instituto Universitario de Investigación en Química Fina y Nanoquímica (IUNAN), Universidad de Córdoba, Campus de Rabanales, Edificio Marie Curie, E-14071 Córdoba, España.

Oral Session Y-A	Young Scientists Oral Presentation (Sample Preparation in Food and Environmental Analysis)

12:10 - 12:20

YS-1. Functionalized HMS Mesostructured Silica as Cation-Exchange Sorbents in Sample Preparation for the Analysis of Atropine and Scopolamine in Thyme, Coriander and Basil

L. González-Gómez, J. Gañán, S. Morante-Zarcero, D. Pérez-Quintanilla, I. Sierra

Departamento de Tecnología Química y Ambiental, Escuela Superior de Ciencias Experimentales y Tecnología (ESCET), Universidad Rey Juan Carlos (URJC). CP.28933, Móstoles, Madrid, España,

12:20 – 12:30

YS-2. Use of an Online LG-GC System for the Investigation of MOH Contamination in Omega-3 Fatty Acid Dietary Supplements

A. Arena[1], M. Zoccali[2], P.Q. Tranchida[1], L. Mondello[1,3,4]

(1) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy,
(2) Department of Mathematical and Computer Science, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy
(3) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
(4) Department of Sciences and Technologies for Human and Environment, University Campus Bio-Medico of Rome, Rome, Italy

12:30 – 12:40

YS-3. Exploration of the Volatile Profile of Whiskey Samples Using Solid-phase Microextraction Arrow Combined with Comprehensive Two-dimensional Gas Chromatography

A. Ferracane[1,2], N. Manousi[2,3], P. Q. Tranchida[1], G. A. Zachariadis[3], L. Mondello[1,4], E. Rosenber
(1) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy,
(2) Institute of Chemical Technologies and Analytics, Vienna University of Technology, 1060 Vienna, Austria
(3) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece
(4) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy

12:40 – 12:50

YS-4. Sustainable Methodology for the Analysis of Hazardous Substances in Air Samples fom Places Related to Tire Rubber Materials

D. Armada[1], M. Celeiro[1], T. Dagnac[2], M. Llompart[1]
(1) CRETUS, Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain,
(2) Agronomic Research Centre (AGACAL-CIAM), Unit of Organic Contaminants, Apartado 10, E-15080, A Coruña, Spain

12:50 – 13:00

YS-5. Solid-Phase Microextraction Followed by Gas Chromatography Tandem Mass Spectrometry to Determine Personal Care Products in Hydroalcoholic Gels

L. Vazquez[1], M. Celeiro[1], A. Castiñeira-Landeira[1], T. Dagnac[2], M. Llompart[1]
(1) CRETUS. Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain.
(2) Galician Agency for Food Quality - Agronomic Research Centre (AGACAL-CIAM) – Unit of Organic Contaminants, Apartado 10, E-15080, A Coruña, Spain

13:00 – 13:10

YS-6. Carbon Nanomaterials from Rice Husk as Novel Sorptive Phases Towards Steroid Hormones from Environmental Waters

P. Bianchini, F. Merlo, F. Maraschi, A. Profumo, L. Malavasi, A. Speltini

(Department of Chemistry, University of Pavia, via Taramelli 12, 27100 Pavia

Poster Session A — Green Sample Preparation

13:10 - 14:00 **Parallel poster session Break Room PS-A**

Poster Session B — Sample Preparation in Food and Biological Analysis

13:10 - 14:00 **Parallel poster session Break Room PS-B**

Oral Session O-3 — New extraction phases I

14:00 - 14:25

PL-2. Coordination Cages as Hosts for Small-Molecule Guests

M.D. Ward

Department of Chemistry, University of Warwick, Coventry CV4 7AL, UK

14:25 - 14:45 **O-8. MOF-based Composites in Analytical Sample Preparation**

V. Pino[1,2], P.I. Napolitano-Tabares[1], A. Gutiérrez-Serpa[1,2], M.J. Trujillo-Rodríguez[1,2], J.H. Ayala[1], J.Pasán[3]
(1) Laboratorio de Materiales para Análisis Químico (MAT4LL), Departamento de Química, Unidad Departamental de Química Analítica, Universidad de La Laguna (ULL), 38206 Tenerife, Spain,
(2) Unidad de Investigación de Bioanalítica y Medioambiente, Instituto Universitario de Enfermedades Tropicales y Salud Pública de Canarias, Universidad de La Laguna (ULL), La Laguna, Tenerife, 38206, Spain
(3) Laboratorio de Materiales para Análisis Químico (MAT4LL), Departamento de Química, Unidad Departamental de Química Inorgánica, Universidad de La Laguna (ULL), 38206 Tenerife, Spain

14:45 - 15:05 **O-9. Metal-Organic Frameworks as Sorbent Material for Magnetic Dispersive micro-Solid-Phase Extraction of Polycyclic Aromatic Compounds in Environmental Samples**

F. Bianchi[1,2], F. Fornari[1], N. Riboni[1], F. Casoli[3], A. Bacchi[1,4], P. P. Mazzeo[1,4], P. Pelagatti[1,5], M. Careri[1] .
(1) Università di Parma, Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale, Parco Area delle Scienze 17/A, 43124 Parma, Italy,
(2) Università di Parma, Centro Interdipartimentale per l'Energia e l'Ambiente (CIDEA), Parco Area delle Scienze, 43124 Parma, Italy
(3) IMEM-CNR, Parco Area delle Scienze 37/A, Parma 43124, Italy
(4) Biopharmanet-TEC, Università di Parma, Parco Area delle Scienze 27/A, 43124 Parma, Italy
(5) Consorzio Interuniversitario Reattività Chimica e Catalisi (CIRCC), Via Celso Ulpiani 27, 70126 Bari, Italy

15:05 - 15:25 **O-10. Novel Extraction Phases Functionalized with Task Specific Ionic Liquids for Metal Detection in Natural Waters**

C. Fontàs, E. Anticó
Chemistry Department, Faculty of Science, University of Girona, Maria Aurèlia Capmany 69, 17003, Girona, Spain.

15:25 – 15:40 **Coffee Break**

Oral Session O-4 **New extraction phases II**

15:40-16:00 **O-11. Nucleic Acid Sample Preparation: Towards Point-of-Care Diagnostics in the Era of SARS-CoV-19**

Jared Anderson
Department of Chemistry, Iowa State University, U.S.A.

16:00 -16:20 **O-12. Capsule Phase Microextraction: A Field Deployable Total Sample Preparation Solution for Modern Environmental Laboratories**

A. Kabir
Department of Chemistry and Biochemistry, Florida International University, Miami, Florida, USA

16:20-16:40 **O-13. Recent Advances of In-tube SPME for Bioanalysis**

M.E. Costa Queiroz
Chemistry Department, Faculty of Science, University of Girona, Maria Aurèlia Capmany 69, 17003, Girona, Spain.

16:40-17:00 **O-14. Mercury Speciation in Water Samples Using a Deep Eutectic Solvent as Extractant Phase in Dispersive Liquid-Liquid Microextraction**

L. Vidal, L. Ripoll, J. Rayos, M.A. Aguirre, A. Canals
Department of Analytical Chemistry, University of Alicante, Alicante, Spain

17:00 – 17:10 **One-to-one meetings**

EuSP2022 Tuesday, 15 March 2022

Oral Session O-5 Analysis of Biological Samples

9:00 - 9:20

O-15. Electromembrane Extraction For Sample Preparation Of Organoids, An Emerging Alternative To Animal Models

S.R. Wilson[1,2], F.S. Skottvoll[2,3], A. Aizenshtadt[2], F. Hansen[4], S. Pedersen-Bjergaard[4], J. Kutter[5], I. Lise Bogen[6], S. Krauss[2]
(1) Department of Chemistry, University of Oslo, Oslo Norway
(2) Hybrid Technology Hub Centre of Excellence, Faculty of Medicine, University of Oslo, Oslo Norway
(3) SINTEF Digital- MiNaLab, Oslo, Norway
(4) Department of Pharmacy, University of Oslo, Oslo Norway
(5) Department of Pharmacy, University of Copenhagen, Copenhagen, Denmark
(6) Section for Drug Abuse Research, Department of Forensic Sciences, Oslo University Hospital, Norway

9:20 - 9:40

O-16. Solid Phase Microextraction: A Tool for Monitoring Distribution and Toxicity of Drugs In Vivo in Patients Undergoing In Vivo Lung Perfusion IVLP

B. Bojko[1,2], N. Looby[1], M. Olkowicz[1,3], A. Roszkowska[1,4], B. Kupcewicz[5], P. R. des Santos[6], K. Ramadan[6], S. Keshavjee[6], T.K. Waddell[6], G. Gómez-Ríos[1], M. Tascon[1], K. Goryński[1], M. Cypel[6], J. Pawliszyn[1]
(1) Department of Chemistry, University of Waterloo, 200 University Avenue, Waterloo, ON M1B 6G3, Canada
(2) Department of Pharmacodynamics and Molecular Pharmacology, Faculty of Pharmacy, Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Torun, Dr. A. Jurasza 2 85-089 Bydgoszcz, Poland
(3) Jagiellonian Centre for Experimental Therapeutics (JCET), Jagiellonian University, 14 Bobrzynskiego St., 30-348 Krakow, Poland
(4) Department of Pharmaceutical Chemistry, Medical University of Gdansk, 80-416 Gdansk, Poland
(5) Department of Inorganic and Analytical Chemistry, Faculty of Pharmacy, Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Torun, 85-089 Bydgoszcz, Poland
(6) University Health Network - TGH, 200 Elizabeth street, Eaton North 9-969, Toronto, ON M5G 2C4, Canada

9:40 - 10:00

O-17. High Throughput Extraction Strategies for Cell Culture Medium-Based Untargeted Exometabolomics Studies

E. Nemutlu[1,2], T. Reçber[1], C.C. Eylem[1], S. Erdoğan Kablan[1], Selin Özesen[3], B. Derkuş[4], E. Boyacı[3], S. Kır[1]
(1) Hacettepe University, Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey,
(2) Hacettepe University, Faculty of Pharmacy, Bioanalytic and Omics Laboratory, Ankara, Turkey
(3) Middle East Technical University, Department of Chemistry, Ankara, Turkey
(4) Ankara University, Faculty of Science, Department of Chemistry, Stem Cell Research Lab, Ankara, Turkey

10:00 - 10:15

O-18. Solid Phase Extraction as Sample Preparation Method for Analysis of Intact Proteins from Biological Samples

K. Maráková[1,2], S.L. Thomas[3], B.J. Renner[3], K.A. Schug[3]
(1) Faculty of Pharmacy, Comenius University, Bratislava, Slovakia,
(2) Toxicological and Antidoping Center, Comenius University, Bratislava, Slovakia
(3) Department of Chemistry and Biochemistry, University of Texas at Arlington, Arlington, TX, United States

10:15 –10:30

O-19. A Validated Method for Automated SPE-LC-MS/MS Determination of Psychoactive Drugs in Blood Plasma and Serum

O. Lerch[1], T. Kieliba[2], H. Andresen-Streichert[2]
(1) GERSTEL GmbH & Co. KG, Eberhard-Gerstel-Platz 1, 45473 Muelheim, Germany,
(2) Institute of Legal Medicine, Melatenguertel 60/62, 50823 Cologne, Germany

10:30 - 10:45 **Coffee Break**

Oral Session O-6	Sample Preparation for Food and Biological Samples

10:45 - 11:05 **O-20. Full Evaporation Static and Dynamic Headspace Sampling: A Forgotten Sample Preparation and Injection Approach for Analysis of Volatiles**
F. David, C. Devos, A. Pacholska, T. Cucu, P. Sandra
RIC-group, Pres. Kennedypark 26, B-8500 Kortrijk, Belgium

11:05 - 11:25 **O-21. High-Concentration Capacity Headspace Extraction Coupled with Comprehensive Multidimensional Gas Chromatography for Enhanced Chromatographic Fingerprint of Food**
G. Purcaro, D. Eggermont, S. Mascrez
Gembloux Agro-Bio Tech, University of Liege, Passage des Déportés, 2, Gembloux, B-5030, Belgium

11:25 – 11:40 **O-22. Olive Oil Characterization: An Innovative Series of Robotic Sample-prep Automations in Accordance with Current Legislation**
A. Carretta[1], C. Ventre[2]
(1) SRA Instruments Italy. Via alla Castellana 3, 20063 – Cernusco s/N (MI), Italy,
(2) Centro Analisi Biochimiche sas. Via Pitagora, 4 – 89016 Rizziconi (RC), Italy

11:40 - 12:00 **O-23. Novel Sorptive Extraction Approaches for "Greener" Bioanalysis**
V. Samanidou
Laboratory of Analytical Chemistry, School of Chemistry, Aristotle University of Thessaloniki

Oral Session Y-B	Young Scientists Oral Presentation (Sample Preparation in Environmental and Biological)

12:00 - 12:10 **YS-7. Functionalization of Commercial Hydrophilic-Lipophilic Balanced Copolymer for Automatic Magnetic Dispersive Micro-Solid Phase Extraction of Surface Water Contaminants**
C.V. Gemuh, B. Horstkotte, P. Solich
Department of Analytical Chemistry, Faculty of Pharmacy, Akademika Heyrovského 1203, 500 05 Hradec Králové, Czech Republic,

12:10 – 12:20 **YS-8. Luminescent Probes Derived from Citric Acid and β-Aminothiols for Fluorimetric and Smartphone-Based Sensing of pH and Ammonia**
L. Placer, F. Pena-Pereira, I. Lavilla, C. Bendicho
Centro de Investigación Mariña, Universidade de Vigo, Departamento de Química Analítica e Alimentaria, Grupo QA2, Edificio CC Experimentais, Campus de Vigo, As Lagoas, Marcosende, 36310 Vigo, Spain

12:20 – 12:30 **YS-9. Optimization of Impinger and Sorbent Tube Sampling for Determination of Rocket Fuel Transformation Products in Ambient Air**
B. Bukenov[1], D. S. Kosyakov[2], N. V. Ul'yanovskii[2], B. Kenessov[1], N. Baimatova[1], M.S. Popov[2]
(1) Center of Physical Chemical Methods of Research and Analysis, Al-Farabi Kazakh National University, 96A Tole bi street, Almaty, 050012, Kazakhstan,
(2) Core Facility Center 'Arktika', Northern (Arctic) Federal University, 17 Northern Dvina emb., Arkhangelsk 163002, Russian Federation

12:30 – 12:40	**YS-10. Determination of Tryptamine Analogs in Whole Blood by Liquid-Phase Microextraction and Electromembrane Extraction in 96-Well Format** **M. Schüller[1]**, M.-S.-S. Bergh[2], E.L. Øiestad[1,2], S. Pedersen-Bjergaard[1,3] *(1) Department of Pharmacy, University of Oslo, P.O Box 1064 Blindern, 0316, Norway,* *(2) Oslo University Hospital, Division of Laboratory Medicine, Department of Forensic Sciences, P.O. Box 4459 Nydalen, 0424, Oslo, Norway* *(3) Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen, Universitetsparken 2, 2100 Copenhagen, Denmark*
12:40 – 12:50	**YS-11. Derivatization Method for Lipid Profiling of Blood Plasma Using GC×GC-TOF-MS** **K. Bhatt**, T. Dejong, P.H.Stefanuto, J.F.Focant *University of Liège, Organic and Biological Analytical Chemistry Group, MolSys, Liège, Belgium*
12:50 – 13:00	**YS-12. Determination of Indoxyl Sulfate and p-Cresol Sulfate in Plasma by Solid Phase Extraction using a Bead Injection Lab-on-Valve Approach and Mass Spectrometry Detection** **S.R. Fernandes[1]**, L. Barreiros[1], B. Sampaio-Maia[2,3], M. Miró[4], M.A. Segundo[1] *(1) LAQV, REQUIMTE, Department of Chemical Sciences, Faculty of Pharmacy, University of Porto, R Jorge Viterbo Ferreira, 228, 4050-313 Porto, Portugal,* *(2) INEB – Instituto Nacional de Engenharia Biomédica / I3S - Institute for Research and Innovation in Health, University of Porto, R Alfredo Allen, 208, 4200-135 Porto, Portugal.* *(3) Faculty of Dental Medicine, University of Porto, R Dr. Manuel Pereira da Silva, 4200-393 Porto, Portugal.* *(4) FI-TRACE group, Department of Chemistry, University of the Balearic Islands, 07071-Palma de Mallorca, Spain.*

Poster Session C	**Sample Preparation for Biological samples**
13:00 - 14:00	**Poster session Break Room PS-C**
Poster Session D	**Environmental Analysis and New Technologies-I**
13:00 - 14:00	**Poster session Break Room PS-D**
Poster Session E	**Environmental Analysis and New Technologies-II**
13:00 - 14:00	**Poster session Break Room PS-E**

GSAC2022 Tuesday, 15 March 2022

14:00 - 14:10 **Opening Session GSAC2022**

C. Cordero, *University of Turin, Italy*
L. Mondello, *University of Messina, Italy*
E. Psillakis, *Technical University of Crete*

EuSP | GSAC Common Oral Session

Oral Session O-A **Green Sample Preparation I - Common Oral Session GSAC | EuSP**

14:10 - 14:40 **PL-3. Evolution of chemistry-from green chemistry to sustainable chemistry**

Klaus Kümmerrer
Leuphana University Lüneburg Germany

14:40 - 15:00 **O-24. Natural Deep Eutectic Solvents: Achievements and Unresolved Issues**

L. Ramos[1], J. Bintanel-Cenis[1,2], B. Gómara[1].
(1) Dpt. Instrumental Analysis and Environmental Chemistry, IQOG-CSIC, Juan de la Cierva 3, Madrid, Spain,
(2) PhD Program. Appl. Chem., Doctoral School, UAM, Cantoblanco, Madrid, Spain

15:00 - 15:20 **O-25. How to Design the Ideal Sample Preparation Method**

E. Rosenberg[1], N. Manousi[1,2], G.A. Zachairiadis[2], V. Samanidou[2], A. Kabir[3,4], K.G. Furton[3] *(1) (1) Vienna University of Technology, Institute of Chemical Technologies and Analytics, Getreidemarkt 9/164, A-1060 Vienna, Austria,*
(2) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece
(3) International Forensic Research Institute, Department of Chemistry and Biochemistry, Florida International University, Miami, FL, USA
(4) Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, Dhaka-1207, Bangladesh
(6) R&D Department Eureka Lab Division, Chiaravalle, Italy.
(7) Department of Medicine and Aging Sciences, Section of Legal Medicine, University of Chieti–Pescara "G. d'Annunzio", Chieti 66100, Italy.
(8) Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th St, Miami, FL 33199, USA.

15:20 - 15:35 **Coffee Break**

Oral Session O-B — Green Sample Preparation II - Common Oral Session GSAC | EuSP

15:35 - 15:55

O-26. The Ten Principles of Green Sample Preparation

E. Psillakis[1], Á.I. López-Lorente[2], F. Pena-Pereira[3], S. Pedersen-Bjergaard[4], S.A. Ozkan[5]
(1) School of Chemical and Environmental Engineering, Technical University of Crete, GR-73100, Chania, Crete, Greece,
(2) Departamento de Química Analítica, Universidad de Córdoba, Campus de Rabanales, Edificio Marie Curie, E-14071, Córdoba, SpainInstitution,
(3) Departamento de Química Analítica e alimentaria, Universidade de Vigo, Grupo QA2, Edificio CC Experimentais, Campus de Vigo, As Lagoas, Marcosende 36310 Vigo, Spain
(4) Department of Pharmacy, University of Oslo, O.O.Box 1068 Blindern, 0316, Oslo, Norway; University of Copenhagen, Universitetsparken 2, 2100 Copenhagen, Denmark
(5) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, 06560, Ankara, Turkey

15:55 - 16:15

O-27. Greenness and its Metrics in Sample Preparation

M. Tobiszewski
Department of Analytical Chemistry, Faculty of Chemistry and EcoTech Center, Gdańsk University of Technology (GUT), 11/12 G. Narutowicza St., 80-233 Gdańsk, Poland

16:15 - 16:35

O-28. Green and Sustainable Sample Preparation Approaches for Targeted and Omics Studies in the Natural Product Field

C. Cagliero
Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, I-10125 Torino, Italy

16:35 - 16:55

O-29. Unraveling the Complex Composition of Produced Water by Specialized Extraction Methodologies

E. Gionfriddo[1], R.V. Emmons[1], G.S. Shyam Sunder[1], T. Liden[2], K.A. Schug[2], J.R. Kirchhoff[1]
(1) Department of Chemistry and Biochemistry and Dr. Nina McClelland Laboratory for Water Chemistry and Environmental Analysis, The University of Toledo, Toledo, Ohio 43615, U.S.A.,
(2) Department of Chemistry and Biochemistry and Collaborative Laboratories for Environmental Analysis and Remediation, The University of Texas at Arlington, Arlington, Texas 76019, U.S.A.

16:55 - 17:10

O-30. Fully automated and multiplex sample analysis via Coated Blade Spray-tandem mass spectrometry

G. Gomez-Rios, R. Micklitsch, S. Stevens, M. Lininger, T. Peters, T. Kane

Restek Corporation, 110 Benner Circle, Bellefonte, Pennsylvania, 16823, USA,

17:10 - 17:20 **One-to-one meetings**

EuSP2022 Wednesday, 16 March 2022

F-OP-1 Flash Oral Presentations I

09:00 – 09:10 **FOP-1. Sustainable Blood and Tissue Microsampling for Biomarker Investigation in Animal Models of Amyotrophic Lateral Sclerosis**

M. Protti[1], J. Rudge[2], L. Regazzoni[3], V. Valsecchi[4], C. Volpi[5], T. Vovk[6], L Mercolini[1]
(1) Research Group of Pharmaco-Toxicological Analysis (PTA Lab), Department of Pharmacy and Biotechnology (FaBiT), Alma Mater Studiorum - University of Bologna, Via Belmeloro 6, 40126 Bologna, Italy,
(2) Neoteryx LLC, 421 Amapola Ave, Torrance, 90501 CA, USA
(3) Department of Pharmaceutical Sciences, University of Milan, Via Mangiagalli 25, 20133 Milan, Italy
(4) Department of Neuroscience and Reproductive and Odontostomatological Sciences, University of Naples Federico II, Via Pansini 5, 80131 Naples, Italy
(5) Department of Experimental Medicine, University of Perugia, Via Gambuli 1, 06132, Perugia, Italy
(6) Faculty of Pharmacy, University of Ljubljana, Aškerčeva 7, 1000 Ljubljana, Slovenia

09:10 – 09:20 **FOP-2. Rapid, Efficient and Selective Preconcentration of Metformin by Molecularly Imprinted Pipette Tip Solid Phase Extraction Adsorbent**

C. Armutcu
Hacettepe University, Faculty of Science, Department of Chemistry, Ankara, Turkey

09:20 – 09:30 **FOP-3. HiSorb Sorptive Extraction Device for the Determination of Salivary Short Chain Fatty Acids and Hydroxy Acids in Heart Failure Patients**

T. Lomonaco, A. Lenzi, D. Biagini, S. Ghimenti, F. Di Francesco
Department of Chemistry and Industrial Chemistry, University of Pisa, Via G. Moruzzi 13, Pisa, Italy

09:30 – 09:40 **FOP-4. Determination of Polar and Zwitterionic Methotrexate and its Metabolites in Human Plasma by Electromembrane Extraction in Conductive Vials Followed by LC-MS/MS**

F.A. Hansen[1], A.O. Hay[1,2], R. Trones[1,2]
(1) Department of Pharmacy, University of Oslo, P.O. Box 1068 Blindern, 0316 Oslo, Norway,
(2) Extraction Technologies Norway, Verkstedveien 29, 1424 Ski, Norway

09:40 – 09:50 **FOP-5. Deep Eutectic Solvents in Direct Immersion Single Drop Microextraction: Application to Lab-In-Syringe Automated Determination of Antibiotics**

S. Yıldırım[1,2], D.J. Cocovi-Solberg[3], B. Uslu[4], P. Solich[2], B. Horstkotte[2]
(1) Karadeniz Technical University, Faculty of Pharmacy, Department of Analytical Chemistry, Farabi Street, 61080 Trabzon, Turkey,
(2) Charles University, Faculty of Pharmacy, Department of Analytical Chemistry, Akademika Heyrovského 1203, 50005 Hradec Králové, Czech Republic
(3) University of Natural Resources and Life Sciences, Vienna, Department of Chemistry, Institute of Analytical chemistry, Muthgasse 18, 1190 Vienna, Austria
(4) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Yenimahalle, Ankara, Turkey

09:50 – 10:00 **FOP-6. Ultrafiltration-Based Extraction of Ibuprofen from Human Plasma Samples and HPLC Analysis**

M. Nenni[1], Y. Senol[2], A. Dogan[2], M. Çelebier[2]
(1) Cukurova University, Faculty of Pharmacy, Department of Analytical Chemistry, Adana, Turkey,
(2) Hacettepe University, Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey

10:00 – 10:10 **FOP-7. Selective Adsorption of Plant Secondary Metabolites by Solid Sorbents**

S. Fiorito, S. Genovese, F. Epifano
Dipartimento di Farmacia, University "G. d'Annunzio" Chieti – Pescara, Via dei Vestini 31, Chieti Scalo (CH), Italy,

10:10 – 10:20 **FOP-8. A Hierarchically Porous Composite Adsorbent for Miniaturized Extraction of Aromatic Environmental Pollutants**

P. Nurerk[1], S. Sillapawisut[1], O. Bunkoed[2], M. Llompart[3]
(1) Functional Materials and Nanotechnology Center of Excellence, School of Science, Walailak University, Nakhon Si Thammarat 80160, Thailand,
(2) Center of Excellence for Innovation in Chemistry, Division of Physical Science, Faculty of Science, Prince of Songkla University, Hat Yai, Songkhla 90110, Thailand
(3) CRETUS Institute, Department of Analytical Chemistry, Nutrition and Food Science, Faculty of Chemistry, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain

10:20 - 10:30 **Coffee Break**

F-OP-2 **Flash Oral Presentations II**

10:30 – 10:40 **FOP-9. Detection of Trace Emerging Contaminants in Seawater by Polar Organic Chemical Integrative Samplers: Optimization of the Sampler Processing to Enhance the Accuracy of the LC-MS/MS Analysis**

B. Benedetti, M. Baglietto, H. MacKeown, C. Scapuzzi, M. Di Carro, E. Magi
Department of Chemistry and Industrial Chemistry, University of Genoa, Via Dodecaneso 31, Genoa

10:40 – 10:50 **FOP-10. Mediterranean Mussel (Mytilus galloprovincialis) as Bioindicator of Endocrine Disrupting Chemicals Contamination. Application of Ultra-High Performance Liquid Chromatography-Tandem Mass Spectrometry**

L. Martín-Pozo[1], L. García-Fernández[1], M.C. Gómez-Regalado[1], A. Navalón[1], F. Hidalgo[2], A. Zafra-Gómez[1,3]
(1) Department of Analytical Chemistry, University of Granada, E-18071 Granada, Spain,
(2) Department of Zoology, University of Granada, E-18071 Granada, Spain
(3) Instituto de Investigación Biosanitaria, Ibs.Granada, E-18016 Granada, Spain

10:50 – 11:00 **FOP-11. Polymer Nanofibers as Versatile Sorbents for Solid Phase Extraction**

I. Lhotská[1], M. Háková[1], S. Zatrochová[1], J. Erben[2], J. Chvojka[2], D. Šatínský[1]
(1) Charles University, Faculty of Pharmacy in Hradec Králové, Heyrovského 1203/8, 50005 Hradec Králové, Czech Republic,
(2) Technical University of Liberec, Faculty of Textile Engineering, Studentská 1402/2, 46001 Liberec, Czech Republic

11:00 – 11:10 **FOP-12. Optimization of Microwave-Assisted Extraction and Ultra-High-Performance Liquid Chromatography tandem Mass Spectrometry (MAE-UHPLC-MS/MS) for the analysis of steroid hormones in wastewater treatment solid samples**

R. Guedes-Alonso[1], J. Domínguez-Pérez[2], Z. Sosa-Ferrera[1], J.J. Santana-Rodríguez[1]
(1) Instituto de Estudios Ambientales y Recursos Naturales, Universidad de Las Palmas de Gran Canaria. Campus Universitario de Tafira, s/n. 35017 Las Palmas de Gran Canaria. Las Palmas, Spain,
(2) Escuela de Ingenierías Industriales y Civiles, Universidad de Las Palmas de Gran Canaria. Campus Universitario de Tafira, s/n. 35017. Las Palmas de Gran Canaria. Las Palmas, Spain

11:10 – 11:20 **FOP-13. Carbon-Based Stir bar for Sorptive Extraction in Water Treatment**

M. Pedrosa, A.M.T. Silva, A.R.L. Ribeiro
ALiCE – Associate Laboratory in Chemical Engineering, Faculdade de Engenharia, Universidade do Porto, Rua Dr. Roberto Frias, 4200-465 Porto, Portugal, (2) Charles University, Faculty of Pharmacy, Department of Analytical Chemistry, Akademika Heyrovského 1203, 50005 Hradec Králové, Czech Republic

11:20 – 11:30 **FOP-14. Analysis of Xenobiotic Contaminants in Probiotic Beverages and Bottled Water Based on a Natural Hydrophobic Deep Eutectic Solvent**

A.V. Herrera-Herrera[1,2], Á. Santana-Mayor[1], A. Conde-Díaz[1], B. Socas-Rodríguez[1], M.Á. Rodríguez-Delgado[1]

(1) Departamento de Química, Facultad de Ciencias, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, s/n, San Cristóbal de La Laguna, 38206, España,
(2) Instituto Universitario de Bio-Orgánica Antonio González, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, 2, San Cristóbal de La Laguna, 38206, España

11:30 – 11:40 **FOP-15. New Polymeric Phases for Thin-Film Liquid Phase Microextraction (TF-LPME) of Organic Pollutants**

F. Merlo[1], A. Profumo[1], C. Fontàs[2], E. Anticó[2]

(1) Department of Chemistry, University of Pavia, via Taramelli 12, 27100 Pavia, Italy;
(2) Department of Chemistry, University of Girona, Campus de Montilivi, 17003 Girona, Spain

11:40 – 11:50 **FOP-16. Development of an Efficient Sample Preparation Workflow for the Determination Multi-Class Pesticides in Complex Matrices: Fatty Matrices**

R. Shinde, M. Dhanshetty, A. Pardeshi, K. Banerjee

National Reference Laboratory, ICAR-National Research Centre for Grapes, Pune 412 307, Maharashtra, India

11:50 – 12:00 **FOP-17. The Many Virtues of Automated Sample Preparation**

C. Liscio

Anatune Ltd, Unit 4 Wellbrook Court CB3 0NA, Girton, Cambridgeshire, UK,

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12:00 – 13:00

AGREEprep walkthrough for greenness assessment of sample prepararation step

Presenters: M. Tobiszewski, F. Pena-Pereira

Round Table Discussion

13:00 – 14:00 **Greeness of official standart sample preparation methods (IUPAC Project)**

Moderators: Frank David and C. Bicchi

Oral Session Y-C — Young Scientists Oral Presentation (Green Sample Preparation)

14:00 – 14:10

YS-13. Green Sample Preparation for Quality Control of Cosmetic Products

V. Vállez-Gomis, C. Azorín, G. Peris-Pastor, J.L. Benedé, A. Chisvert, A. Salvador

GICAPC Research Group, Department of Analytical Chemistry, University of Valencia, Doctor Moliner St. 50, 46100 Burjassot, (Valencia, Spain)

14:10 – 14:20

YS-14. Life Cycle Assessment of Sample Preparation in Analytical Chemistry: A Case Study on SBSE and SPE techniques

B. Raccary[1,2], P. Loubet[1], C. Peres[3], G. Sonnemann[1]

(1) Univ. Bordeaux, CNRS, Bordeaux INP, ISN, UMR 5255, F-33400, Talence, France,
(2) Analytiss, 89 Rue des Poissonniers, 76018, Paris, France
(3) Le Labo Durable, 89 Rue des Poissonniers, 75018, Paris, France .

14:20 – 14:30

YS-15. Development of a Dispersive Solid-Liquid Microextraction Method Using Natural Eutectic Mixtures for a Greener Extraction of Phytochemicals from Cannabis sp. Samples

G. Mastellone[1], G. Bechis[2], A. Marengo[2], B. Sgorbini[2], P. Rubiolo[2], C. Cagliero[2]

(1) Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, I-10125 Torino, Italy,
(2) Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, I-10125 Torino, Italy

14:30 – 14:40

YS-16. Assessment of Phthalic Acid Ester Residues in Kombuchas Using a Natural Hydrophobic Deep Eutectic Solvent

R. Rodríguez-Ramos[1], A.V. Herrera-Herrera[1,2], A. Conde-Díaz[1], B. Socas-Rodríguez[1], M.Á. Rodríguez-Delgado[1]

(1) Departamento de Química, Facultad de Ciencias, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, s/n, San Cristóbal de La Laguna, 38206, España,

(2) Instituto Universitario de Bio-Orgánica Antonio González, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, 2, San Cristóbal de La Laguna, 38206, España

14:40 – 14:50

YS-17. Deep Eutectic Solvent-Based Extraction and Nano-Liquid Chromatography. A Green Approach for Alkylphenols Analysis

Á. Santana-Mayor[1], G. D'Orazio[2], A.V. Herrera-Herrera[1,3], B. Socas-Rodríguez[1], M.Á. Rodríguez-Delgado[1]

(1) Departamento de Química, Facultad de Ciencias, Universidad de La Laguna (ULL), Avda Astrofísico Fco Sánchez, s/n, San Cristóbal de La Laguna, 38206, Spain,

(2) Istituto per i Sistemi Biologici, Consiglio Nazionale delle Ricerche, Via Salaria km 29,300, 00015 Monterotondo (RM), Italy

(3) Instituto Universitario de Bio-Orgánica Antonio González, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, 2, San Cristóbal de La Laguna, 38206, Spain

14:50 – 15:00

YS-18. Development and Application of a New Sustainable Polyaniline-Based Magnetic Micro Dispersive Solid Phase Extraction Method for the Determination of Plastic Migrants in Jellies

A. Conde-Díaz[1], R. Rodríguez-Ramos[1], A.V. Herrera-Herrera[2], B. Socas-Rodríguez[1] y M.A. Rodríguez Delgado[1]

(1) Departamento de Química, Unidad Departamental de Química Analítica, Facultad de Ciencias, Universidad de La Laguna (ULL). Avda. Astrofísico Fco. Sánchez, s/nº. 38206 San Cristóbal de La Laguna, España,
(2) Instituto Universitario de Bio-Orgánica Antonio González, Universidad de La Laguna (ULL), Avda. Astrofísico Fco. Sánchez, 2, San
Cristóbal de La Laguna, 38206, España

15:00 – 15:10 **YS-19. Potential Applicability of Natural Deep Eutectic Solvents as Dispersive Solvents in a DLLME-SFO Approach**

L. Carbonell-Rozas[1], R. Canales[2], F.J. Lara[1], A.M. García-Campaña[1], M.F. Silva[2]
(1) Department of Analytical Chemistry, Faculty of Sciences, University of Granada, Spain,
(2) Institute of Agricultural Biology of Mendoza (IBAM-CONICET), Faculty of Agricultural Sciences, University of Cuyo, Argentina

15:10 – 15:20 **Modern Sample Preparation Techniques, Sample Preparation Summer School**

H. Sklenarova, B. Horstkotte, P. Chocholous, I. Lhotska, V. Pilarova, P. Solich
Faculty of Pharmacy, Charles University, Akademika Heyrovskeho 1203, Hradec Kralove, Czech Republic

15:20 - 15:30 **Coffee Break**

EuSP | GSAC Common Session

Oral Session O-C

Green Chemsitry Common Session EuSP | GSAC

Division of Green and Sustainable Chemistry EuChemS-DGSC

EuSP | GSAC Common Session

17:20 **EuSP | GSAC Closing Ceremony and Awards**

GSAC2022 Wednesday, 16 March 2022

Oral Session — Oral Presentations I

09:00 – 09:30 **PL-4. Optimization and Green Metrics Analysis on the Microplastics Determination in Water and Sediments**
D. Barcelo[1,2], Y. Picó[3]
(1) Department of Environmental Chemistry, IDAEA-CSIC, Jordi Girona 18-26, 08034 Barcelona, Spain,
(2) Catalan Institute for Water Research, ICRA – CERCA, Technological Park of the University of Girona, Emili Grahit 101, 17003 Girona, Spain
(3) Environmental and Food Safety Research Group of the University of Valencia (SAMA-UV), Desertification Research Centre (CIDE), CSIC-GV-UV, Moncada Naquera Road Km 4.3, 46113 Moncada, Valencia, Spain

09:30 – 09:55 **O-31. Speed limits of SFC separations at ultra-high pressures**
G.Desmet, K. Broeckhoven.
Vrije Universiteit Brussel, Pleinlaan 2, B-1050 Brussels, Belgium

09:55 – 10:20 **O-32. What is the Potential of Modern SFC: Performance, Greenness, MS Coupling and Comparison with LC?**
D. Guillarme[1,2], J.L. Veuthey[1,2]
(1) Section des Sciences Pharmaceutiques, Université de Genève, CMU - Rue Michel-Servet, 1, 1206 Genève, Suisse,
(2) Institut des Sciences Pharmaceutiques de Suisse Occidentale (ISPSO), Université de Genève, CMU - Rue Michel-Servet, 1, 1206 Genève, Suisse

10:20 – 10:45 **O-33. Green in Analytical Chemistry: A Necessary Evolution**
C. Pérès, B. Raccary
The Green Analytical Project, 29 rue du midi, 43100 Brioude, France

10:45 – 11:00 **Coffee Break**

Oral Session — Oral Presentations II

11:00 – 11:25 **O-34. Greening Sample Preparation**
M. de la Guardia, S. Armenta, F.A. Esteve-Turrillas, S. Garrigues
Department of Analytical Chemistry, University of Valencia, "Jeroni Muñoz" research building, 50th Dr. Moliner st. 46100, Burjassot (Valencia) Spain

11:25 – 11:45 **O-35. Green and Sustainable Method for the Analysis of Phthalate Esters in Vegetable Oils by Means of GC×GC-QqQ MS**
M. Zoccali[1], A. Arena[2], P.Q. Tranchida[2], L. Mondello[2,3,4]
(1) Department of Mathematical and Computer Science, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy,
(2) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
(3) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
(4) Department of Sciences and Technologies for Human and Environment, University Campus Bio-Medico of Rome, Rome, Italy

11:45 – 12:00 **O-36. Fabric Phase Sorptive Extraction in TDM and Pharmacotoxicological Studies Using Unconventional Biological Matrices**

M. Locatelli[1], A. Kabir[2], H.I. Ulusoy[3], G.M. Merone[4], F. Savini[4], C. D'Ovidio[5], M. Bonelli[5], E. Rosato[1], U. De Grazia[6], K.G. Furton[2], A. Tartaglia[1]

(1) Department of Pharmacy, University of Chieti–Pescara "G. d'Annunzio", Via dei Vestini 31, Chieti 66100, Italy,
(2) Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th St, Miami, FL 33199, USA
(3) Department of Analytical Chemistry, Faculty of Pharmacy, Cumhuriyet University, Sivas 58140, Turkey
(4) Pharmatoxicology Laboratory—Hospital "Santo Spirito", Via Fonte Romana 8, Pescara 65124, Italy
(5) Department of Medicine and Aging Sciences, Section of Legal Medicine, University of Chieti–Pescara "G. d'Annunzio", Chieti 66100, Italy
(6) Fondazione IRCCS Istituto Neurologico Carlo Besta, Laboratory of Neurological Biochemistry and Neuropharmacology, Via Celoria 11, Milan 20133, Italy

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AGREEprep walkthrough for greenness assessment of sample preparation step

Presenters: M. Tobiszewski, F. Pena-Pereira

Poster Session 1	**Flash Poster Presentations: Food & Environmental applications**
13:00 - 14:00	**Poster session Break Room PS-1**
Poster Session 2	**Flash Poster Presentations: Green & Sustainable Methods**
13:00 - 14:00	**Poster session Break Room PS-2**
Poster Session 3	**Flash Poster Presentations: Sensors**
13:00 - 14:00	**Poster session Break Room PS-3**
Poster Session 4	**Breaking Room Miscellaneous**
13:00 - 14:00	**Poster session Break Room PS-4**

Oral Session **Oral Presentations III**

14:00 – 14:25 **O-37. Moving Forward to Green Foodomics**
M. Herrero, R. Gallego, J.D. Sánchez-Martínez, A. Cifuentes, E. Ibáñez
Institute of Food Science Research (CIAL, CSIC-UAM), Nicolas Cabrera 9, 28049 – Madrid (Spain)

14:25 – 14:40 **O-38. Gaseous Mercury Monitoring in Ambient Air Using Unassisted Diffusion Strategies: a Field Intercomparison of Three Passive Air Sampler**
A. Naccarato[1], A. Tassone[1], M. Martino[1], S. Moretti[1], N. Pirrone[1], M. Nerentorp[2], J. Munthe[2], I. Wängberg[2], G.W. Stupple[3], C.P.J. Mitchell[4], A.R. Martin[4], A. Steffen[3], D. Babi[5], E.M. Prestbo[5], F. Sprovieri[1], F. Wania[4]
(1) CNR-Institute of Atmospheric Pollution Research, Division of Rende, UNICAL-Polifunzionale, I-87036 Arcavacata di Rende, (CS), Italy,
(2) IVL Swedish Environmental Research Institute, Gothenburg 41133, Sweden
(3) Air Quality Processes Research Section, Environment and Climate Change Canada, Toronto, M3H 5T4, Canada
(4) Department of Physical and Environmental Sciences, University of Toronto Scarborough, Toronto, M1C 1A4, Canada
(5) Tekran Instruments Corporation, 330 Nantucket Boulevard, Toronto, Ontario, M1P 2P4, Canada

14:40 – 14:55 **O-39. Application of Green Methodology to Pharmaceutical Analysis Using Eco-Friendly Ethanol-Water Mobile Phases**
A. Dogan, C.C. Eylem, N.E.B. Akduman
Hacettepe University, Faculty of Pharmacy, Department of Analytical Chemistry, 06100, Sihhiye, Ankara,Turkey,

14:55 – 15:10 **O-40. A New Ambient Approach for Acquiring Electron Ionization Mass Spectra in Real-Time with a Low Environmental Impact**
A. Arigò[1], G. Famiglini[1], P. Palma[1,2], A. Cappiello[1,2]
(1) University of Urbino Carlo Bo, Via Aurelio Saffi, 2 – 61029 Urbino PU – IT, Italy,
(2) Vancouver Island University, 900 Fifth St, Nanaimo, BC V9R 5S5, Canada

15:10 – 15:25 **O-41. Evaluating Novel Multi-Phase High-Capacity Sorptive Extraction (HiSorbTM) Coupled with Gas Chromatography–Mass Spectrometry (GC–MS) for Flavour Profiling Hard Seltzers**
R. Szafnauer, L. Hearn
Markes International Ltd, 1000B Central Park Western Avenue, Bridgend, CF31 3RT, UK

15:25 - 15:35 **Coffee Break**

EuSP | GSAC

Common Session

Oral Session O-C **Green Chemsitry - Common Session GSAC | EuSP**
Division of Green and Sustainable Chemistry EuChemS-DGSC

15:35 – 16:05 **O-42. Processing of homogeneous nanostructured materials using compressed fluids**
N. Ventosa
Institut de Ciència de Materials de Barcelona (CSIC)-CIBER-BBN, Spain

16:05 – 16:30

O-43. Raman Analysis of Mixtures in Micro-Capillaries

A. Braeuer[1,2], M.H.H. Fechter[1,2], M. Willger[1], F. Spiske[1], M.T. Gebrekidan[1]

(1) Technische Universität Bergakademie Freiberg, Institute for Thermal, Environmental and Resources' Process Engineering (ITUN), Leipziger Strasse 28, 09599 Freiberg, Germany,

(2) Technische Universität Bergakademie Freiberg, Center for Efficient High Temperature Processes and Materials Conversion (ZeHS), Winklerstraße 5, 09599 Freiberg, Germany

16:30 – 16:55

O-44. Exploring the Combination of Supercritical CO2 and Molecular Imprinting: Challenges and Applications

T. Casimiro

LAQV-REQUIMTE, Department of Chemistry, NOVA School of Science and Technology, 2829-516 Caparica, Portugal,

16:55 – 17:20

O-45. Exploring Sub- and Supercritical Fluids as Green Solvents in Analytical-Scale Extractions

C. Turner[1], T. Freedom Gondo[1], F. Nermark[1], V. Pilarová[1,2], M. Norberg[1], D. Papp[1], M. Sandahl[1]

(1) Lund University, Department of Chemistry, Centre for Analysis and Synthesis, P.O. Box 124, SE-22100 Lund, Sweden

(2) Charles University, Department of Analytical Chemistry, Faculty of Pharmacy in Hradec Králové, Czech Republic.

EuSP | GSAC Common Session

17:20

EuSP | GSAC Closing Ceremony and Awards

Poster Sessions

Two parallel poster sessions (**PS-A** and **PS-B**) are scheduled on Monday, 14 March (CET 13:10 - 14:00) and another three parallel poster sessions (**PS-C, PS-D** and **PS-E**) on Tuesday, 15 March (CET 13:00 - 14:00).

Monday, 14 March 2022
13:10 - 14:00

PS-A Poster Session A
Green Sample Prepration

P1. MATRIX SOLID-PHASE DISPERSION AS A GREEN ALTERNATIVE FOR THE EXTRACTION OF WET PASTE HAEMATOCOCCUS PLUVIALIS APLANOSPORA USING SOLVENTS GENERALLY RECOGNISED AS SAFE

A., Castillo[1,2*], M., Lores[2], C. Garcia-Jares[1,2]
(1) CRETUS, Department of Analytical Chemistry, Nutrition and Bromatology, Universidade de Santiago de Compostela E-15782, Santiago de Compostela, Spain.
(2) Laboratory of Research and Development of Analytical Solutions (LIDSA), Department of Analytical Chemistry, Nutrition and Bromatology, Universidade de Santiago de Compostela E-15782, Santiago de Compostela, Spain.

P2. Searching for Phytochemicals in Galician Crops by Ultrasound Assisted Extraction with Green Solvents

L. Rubio[1,2], M.C. Valiño[3], M.J. Expósito[3], M. Lores[2], C. Garcia-Jares[1,2]
(1) CRETUS, Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782 Santiago de Compostela, Spain, laura.rubio.lareu@usc.es
(2) Laboratory of Research and Development of Analytical Solutions (LIDSA), Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782 Santiago de Compostela, Spain
(3) Milhulloa S.Coop.Galega, E-27204 Palas de Rei, Lugo, Spain

P3. Multivariate Optimization of Ultrasonic And Infrared Assisted Extraction For Multielement Determination In Animal Feed

F. Cora Jofre[1,2], M. Savio[1,2].
(1) Instituto de Ciencias de la Tierra y Ambientales de La Pampa (INCITAP- CONICET-UNLPam), fcorajofre@exactas.unlpam.edu.ar
(2) Departamento de Química, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa (UNLPam).

P4. NADES for Sample Treatment of Immunoglobulins. Compatibility with Capillary Gel Electrophoresis Analysis

A. Puerta[1], P. Tejedor-Matellanes[1], M. de Frutos[1].
(1) Institute of Organic Chemistry (IQOG-CSIC), Juan de la Cierva 3. 28006 Madrid. Spain, angeldelapuerta@iqog.csic.es

P5. Infrared Radiation Assisted Digestion As A Greener Simple Method For Pork Meat Multielemental Analysis By MIP OES

F. Cora Jofre[1,2], **M. Savio[1,2]**
(1) Instituto de Ciencias de la Tierra y Ambientales de La Pampa (INCITAP- CONICET-UNLPam), msavio@exactas.ulpam.edu.ar
(2) Departamento de Química, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa (UNLPam).

P6. Selective Fractionation of Bioactive Carbohydrates Using Natural Deep Eutectic Solvents (NADES)

I. Jiménez Amezcua[1,2], M.I. López Martínez[1], S. Rivas Blas[1], A.I. Ruiz Matute[1], M.L. Sanz[1]
(1) Instituto de Química Orgánica General (CSIC) - Juan de la Cierva 3 - 28006 - Madrid - Spain
(2) Pharmactive Biotech Products, S.L. – Faraday 7, 28049 Madrid, Spain

P7. Extraction of Emerging Contaminants from Wastewater and Urine by Dispersive Liquid-Liquid Microextraction with Solidification of the Floating Organic Droplet using Deep Eutectic Mixtures

C. Ortega-Zamora[1,2], J. González-Sálamo[1,2,3], J. Hernández-Borges[1,2]
(1) Universidad de La Laguna, Departamento de Química, Unidad Departamental de Química Analítica, Facultad de Ciencias, Avda. Astrofísico Fco. Sánchez, s/n. 38206 San Cristóbal de La Laguna, Spain, cortegaz@ull.edu.es
(2) Universidad de La Laguna, Instituto Universitario de Enfermedades Tropicales y Salud Pública de Canarias, Avda. Astrofísico Fco. Sánchez, s/n. 38206 San Cristóbal de La Laguna, Spain
(3) Sapienza University, Department of Chemistry, P.le Aldo Moro, 5. 00185 Rome, Italy

P8. Silymarin extraction using Gas Expanded Liquids

N. Abderrezag[1,2], W. Louaer[1], A.H. Meniai[1], J.A. Mendiola[2].
(1) Laboratory of Environmental Process Engineering, Faculty of Process Engineering, University Salah Boubnider–Constantine 3, 25000 Constantine, Algeria. (nourlhouda.abderrazag@univ-constantine3.dz)
(2) Foodomics Laboratory, Bioactivity and Food Analysis Department, Institute of Food Science Research CIAL (UAM-CSIC), Nicolás Cabrera 9, 28049 Madrid, Spain.

P9. Antioxidant and Antibacterial Activity of Polyphenol Rich Grape Skin Extracts

N. Dabetic, V. Todorovic, D. Bozic, J.A. Stankovic, S. Sobajic
Faculty of Pharmacy, University of Belgrade, Vojvode Stepe 450, 11221 Belgrade, nevenad@pharmacy.bg.ac.rs

P10. Pre-Cleaned Wooden Toothpicks as Natural Sorbents for the Determination of Tricyclic Antidepressant Drugs in Saliva by Mass Spectrometry

J. Sundberg, K. Huynh, **J. Millán-Santiago**, R. Lucena, S. Cárdenas
Affordable and Sustainable Sample Preparation (AS2P) Research Group, Departamento de Química Analítica, Instituto Universitario de Investigación en Química Fina y Nanoquímica (IUNAN), Universidad de Córdoba, Campus de Rabanales, Edificio Marie Curie, E-14071 Córdoba, Spain, q52misaj@uco.es

P11. Subcritical Ethanol for Accelerated Solvent Extraction of Petroleum Biomarkers in Oil Source Rocks

B.J. Pollo[1], P.T.V. Rosa[1], F. Augusto[1,2]
(1) Institute of Chemistry, University of Campinas, Campinas, SP 13083-970, Brazil, pollobreno@gmail.com
(2) National Institute of Science and Technology in Bioanalysis (INCTBio)

P12. Optimization of a Solid Phase Extraction Method Using Sugarcane Bagasse Based Sorbets for the Determination of Pesticides in Water

R. Sayed, M. Wageed, S. Alsherbeny, S. Safty, M. Soliman
Agricultual Research Center, Central Laboratory of Residue Analysis of Pesticides and Heavy Metals in Foods (QCAP Egypt), 7-Nadi Elsaid St., Dokki, Giza, Egypt, ramadanalahmady5@gmail.com

P13. Simultaneous Extraction of Betulin and Betulinic Acid from Birch (Betula sp.) Bark Using Hydrophobic Deep Eutectic Solvents

I. Luque-Jurado[1], S. Rivas[1], M.L. Sanz[1], R. Lebrón-Aguilar[2], J.E. Quintanilla-López[2], A.C. Soria[1]
(1) Instituto de Química Orgánica General (IQOG-CSIC). Juan de la Cierva, 3 28006, Madrid, Spain, iluque@iqog.csic.es
(2) Instituto de Química-Física "Rocasolano" (IQFR-CSIC). Serrano, 119 28006, Madrid, Spain

P14. Green Methods for the Extraction of Hidroxytyrosol and Luteolin from Olive Oil By-Products and Bioacessibility Evaluation

M.N. Mayer, M.A. Fernandez, M. Espino, M.F. Silva
Instituto de Biología Agrícola de Mendoza (IBAM-CONICET), Facultad de Ciencias Agrarias, Universidad Nacional de Cuyo, 5505 Mendoza, Argentina, meyermorgana@gmail.com

P15. Vacuum-Assisted Headspace SPME-Arrow: Theoretical Formulation and Method Optimization for the Extraction of Polycyclic Aromatic Hydrocarbons from Water Samples

I. Kandylioti, A. Pateraki, E. Psillakis
Laboratory of Aquatic Chemistry, School of Environmental Engineering, Technical University of Crete, Polytechneioupolis, GR-73100 Chania, Greece, ikandylioti@isc.tuc.gr

P16. Surface Activity of Imidazolium Based Ionic Liquids

M. Wojcieszak, A. Skrzypczak, K. Materna
Poznan University of Technology, 60-965 Poznan Poland, marta.d.wojcieszak@doctorate.put.poznan.pl

P17. Vacuum Assisted Headspace Solid-Phase Microextraction for the Simultaneous, Reliable and Sustainable Characterization of the Terpenoid and Cannabinoid Fractions of Hemp Inflorescences

F. Capetti, P. Rubiolo, G. Mastellone, A. Marengo, B. Sgorbini, C. Cagliero
Dipartimento di Scienza e Tecnologia del Farmaco, Università di Torino, Via P. Giuria 9, 10125 Turin, Italy, francesca.capetti@unito.it

P18. Production Water Analysis by Combining Electrospray on Paper (EPS) and Laser-Induced Breakdown Spectroscopy (LIBS) techniques

C. Carreño, R. Cabanzo, E. Mejia-Ospino
Laboratorio de Espectroscopía Atómica y Molecular (LEAM), Universidad Industrial de Santander, Bucaramanga, Colombia, albeiroles@gmail.com

P19. Automated µSPE Clean-Up of Polycyclic Aromatic Hydrocarbons from Sunflower Oil for GC-MS Analysis

H.J. Hübschmann[1], P. Eyring[2], T. Preiswerk[3], H.L. Frandsen[2], L. Duedahl-Olesen[2]
(1) CTC Analytics Asia Pte. Ltd., The Gemini #0403B, Science Park II, 41 Science Park Road, Singapore 117610, Singapore, hjhuebschmann@ctc.ch
(2) Danish Technical University, Anker Engelunds Vej 1, 2800 Kgs. Lyngby, Denmark
(3) CTC Analytics AG, Industriestrasse 20, 4222 Zwingen, Switzerland

Monday, 14 March 2022
13:10 - 14:00

PS-B

Poster Session B

Food Samples

P20. Supported Liquid Membrane-Protected Molecularly Imprinted Micro-Solid Phase Extraction of Sulfonamides in Honey

M. Díaz-Álvarez, A. Martín-Esteban
Departamento de Medio Ambiente y Agronomía. INIA-CSIC. Carretera de A Coruña km. 7. 28040 Madrid. Spain, mdalvarez@inia.es

P21. Multiresidue Analysis of Emerging Contaminants in Cereals

R.A. Pérez, J.L. Tadeo, B. Albero
Departamento de Medio Ambiente y Agronomía, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA-CSIC), Ctra. de la Coruña, Km. 7, 28040 Madrid, Spain, perez.rosana@inia.es

P22. Selective Separation of Phenolic Compounds and Sugars by Liquid Extraction with Sustainable Solvents

B. Sáenz de Miera, R. Cañadas, I. Díaz, M. Rodríguez, M. González-Miquel, E.J. González
Dpto. Ingeniería Química Industrial y del Medio Ambiente, ETSI Industriales, Universidad Politécnica de Madrid, C/ José Gutiérrez Abascal 2, Madrid, 28006, Spain. blanca.saenz@upm.es

P23. Development of a CPME-HPLC-UV-Vis Method for the Determination of Bisphenol- A and Monomers Released from Dental Resins in Beverages and Refreshments

M. Vladitsi[1], N.P. Kalogiouri[1], P. Mourouzis[2], A. Kabir[3], K. Furton[3], V.F. Samanidou[1]
(1) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece, vladitsi@chem.auth.gr
(2) Laboratory of Operative Dentistry, Department of Dentistry, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, GR-54124 Thessaloniki, Greece
(3) Department of Pharmacy and Biochemistry, Florida International University, Miami, FL, USA

P24. Development of an FPSE-HPLC-UV Method for the Determination of Monomers Released from Dental Resins in Alcoholic Beverages

C. Nikolaou[1], N.P. Kalogiouri[1], P. Mourouzis[2], A. Kabir[3], K. Furton[3], V.F. Samanidou[1]
(1) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece, charanik@outlook.com
(2) Laboratory of Operative Dentistry, Department of Dentistry, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece
(3) Department of Pharmacy and Biochemistry, Florida International University, Miami, FL, USA

P25. SPE or DLLME as Extraction Procedure for the GC Determination of Phthalates Residues Released in Hot Beverages

P. Avino, I. Notardonato, S. Passarella, A. Iannone, C. Di Fiore, M.V. Russo

Department of Agriculture, Environmental and Food Sciences, University of Molise, Via De Sanctis, I-86100 Campobasso, Italy, avino@unimol.it

P26. The Contribution of Varietal Thiols in the Diverse Aroma of Italian Monovarietal White Wines

M. Piergiovanni[1], S. Carlin[2], D. Perenzoni[2], U. Vrhovsek[2], E. Pittari[3], P. Piombino[3], M. Ugliano[4], F. Mattivi[1,2]
(1) Centre Agriculture Food Environment (C3A), University of Trento, San Michele all'Adige, Italy, m.piergiovanni@unitn.it
(2) Department of Food Quality and Nutrition, Research and Innovation Centre, Fondazione Edmund Mach, San Michele all'Adige, Italy
(3) Department of Agricultural Sciences, Division of Vine and Wine Sciences, University of Napoli Federico II, Avellino, Italy
(4) Department of Biotechnology, University of Verona, Verona, Italy

P27. A Rapid CPME-HPLC-DAD Method for the Determination of Coumarin in Bakery Products and the Guarantee of Quality and Safety

N.P. Kalogiouri[1], N. Ampatzi[1], A. Kabir[2,3], K. Furton[3], V.F. Samanidou[1]
(1) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece, kalogiourin@chem.auth.gr
(2) Department of Pharmacy, Faculty of Allied Health Science, Daffodil International University, Dhaka-1207, Bangladesh
(3) Department of Pharmacy and Biochemistry, Florida International University, Miami, FL, USA

P28. Enhanced Extraction of Volatiles from Greek Thyme Honey Samples Using Vacuum-Assisted Headspace Solid Phase Microextraction

A. Pateraki, M.A. Koutsospyrou, E. Psillakis
Laboratory of Aquatic Chemistry, School of Environmental Engineering, Technical University of Crete, Polytechneioupolis, GR-73100 Chania, Greece, apateraki5@isc.tuc.gr

P29. Solid Phase Extraction-Based on Smart Produced Molecularly Imprinted Polymers for Contaminant Detection in Foods

D. Elfadil[1,2], S. Palmieri[1], F. Silveri[1], F. Della Pelle[1], M. Del Carlo[1], M. Sergi[1], A. Amine[1], D. Compagnone[1]
(1) Faculty of Bioscience and Technology for Food, Agriculture and Environment, University of Teramo, via Renato Balzarini 1, 64100 Teramo, Italy, delfadil@unite.it
(2) Laboratory of Process Engineering and Environment, Faculty of Sciences and Techniques, Hassan II University of Casablanca, Mohammedia, Morocco

P30. HS-HCC Techniques in Combination with Multi Cumulative Trapping and GC×GC-qMS Followed by Machine Learning to Explore the Impact of Packaging on Coffee Brew Aroma

D. Eggermont, S. Mascrez, G. Purcaro
Gembloux Agro-Bio Tech, University of Liege, Passage des Déportés, 2, Gembloux, B-5030, Belgium, damien.eggermont@student.uliege.be

P31. A Rapid Single Step Microwave-Assisted Extraction and Derivatization Method for the Analysis of Fatty Acid in Food by GC×GC-FID

S. Mascrez, A. Fina, G. Purcaro
Gembloux Agro-Bio Tech, University of Liege, Passage des Déportés, 2, Gembloux, B-5030, Belgium, steven.mascrez@uliege.be

P32. Optimization of a Headspace Solid-Phase Microextraction and Gas Chromatography Mass Spectrometry method for profiling volatiles in tropical fruits

M. Saura-Cayuela[1], M.J. Trujillo-Rodríguez[1,2], M.J. Grajal-Martín[3], A. Peña[3], J.H. Ayala[1], V. Pino[1,2]
(1) Laboratorio de Materiales para Análisis Químico (MAT4LL), Departamento de Química, Unidad Departamental de Química Analítica, Universidad de La Laguna (ULL), 38206 Tenerife, Spain, alu0101061061@ull.edu.es
(2) Unidad de Investigación de Bioanalítica y Medioambiente, Instituto Universitario de Enfermedades Tropicales y Salud Pública de Canarias, Universidad de La Laguna (ULL), La Laguna, Tenerife, 38206, Spain
(3) Instituto Canario de Investigaciones Agrarias (ICIA), San Cristóbal de La Laguna, Tenerife, 38297, Spain

P33. Development of an Extraction Process to Obtain Flavonoid-Rich Extract from Bergamot Natural Juice

Y. Oulad El Majdoub[1], M. Russo[1], I. L. Bonaccorsi[1], P. Dugo[1,2], L. Mondello[1,2,3]
(1) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy, youladelmajdoub@unime.it
(2) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
(3) Department of Sciences and Technologies for Human and Environment, University Campus Bio-Medico of Rome, Rome, Italy

P34. Challenges and Opportunities for Micro-Extraction Techniques to Accurately Monitor Cheese Volatilome Evolution During Ripening and Promptly Detect Spoilage

A. Caratti[1], P. Bolzoni[1], S. Squara[1], D. Giaccone[2], G. Borreani[3], P. Dolci[3], D. Nucera[3], F. Bruno[4], C. Bicchi[1], B. Sgorbini[1], C. Cordero[1]
(1) Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, Via Pietro Giuria 9, I-10125 Torino, Italy, andrea.caratti@unito.it
(2) ARA Piemonte, Via Torre Roa, Cuneo, Italy
(3) Dipartimento di Scienze Agrarie, Forestali e Alimentari, Università degli Studi di Torino, Largo Paolo Braccini, 2, I-10095 Grugliasco TO, Italy
(4) Beppino Occelli Agrinatura S.r.l, Regione Scarrone 2, I-12060 Farigliano CN, Italy

P35. Butter Volatilome: Vacuum-Assisted Headspace Solid Phase Microextraction Improves Fingerprinting Information Capacity

S. Squara[1], A. Caratti[1], P. Bolzoni[1], D. Giaccone[2], G. Borreani[3], F. Bruno[4], C. Bicchi[1], C. Cordero[1]
(1) Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, Via Pietro Giuria 9, I-10125 Torino, Italy, simone.squara@unito.it
(2) ARA Piemonte, Via Torre Roa, Cuneo, Italy
(3) Dipartimento di Scienze Agrarie, Forestali e Alimentari, Università degli Studi di Torino, Largo Braccini, 2, I-10095 Grugliasco TO, Italy
(4) Beppino Occelli Agrinatura S.r.l, Regione Scarrone 2, I-12060 Farigliano CN, Italy

P36. Synthesis of Polyacrylamide/Carmine Polymer Nanomaterial as an Effective Solid-Phase Material for Ultrasonic-Assisted Solid-Phase Microextraction of Aluminum and Chromium in Vegetable Samples

S. Ulusoy[1], Adil Elik[2], H.I. Ulusoy[3], S. Şimşek[2], N. Altunay[2]
(1) Sivas Cumhuriyet University, Vocational School of Health Service, Department of Pharmacy, Sivas, Turkey, sonulusoy@yahoo.com
(2) Department of Chemistry, Sivas Cumhuriyet University, Sivas, Tukey
(3) Sivas Cumhuriyet University, Faculty of Pharmacy, Department of Analytical Chemistry, Sivas, Turkey

P37. Combining Low-Density Solvent Based Microextraction with Pulsed Splitless Injection for High Sensitivity GC-MS Analysis of Polycyclic Aromatic Hydrocarbons, Phthalates, and Pesticide Residues in Infant Formulas

M.H. Petrarca, E. Vicente, S.A.V. Tfouni
Centro de Ciência e Qualidade de Alimentos, Instituto de Tecnologia de Alimentos - ITAL, Avenida Brasil nº 2880, 13070-178, Campinas, SP, Brasil, petrarcamh@gmail.com

P38. Elucidation of Fish Feed MOSH&MOAH Contamination by LC-GC×GC-FID

G. Bauwens, G. Purcaro
Gembloux Agro-Bio Tech, University of Liege, Passage des Déportés, 2, Gembloux, B-5030, Belgium, bauwens.gregory@outlook.be

P39. Molecularly Imprinted Polymer-Based Solid Phase Extraction for Selective Aflatoxins Determination in Food

S. Palmieri[1], D. ElFadil[1,2], A. Amine[2], F. della Pelle[1], M. Sergi[1], D. Compagnone[1]
(1) Faculty of Bioscience and Technology for Food, Agriculture and Environment, University of Teramo, 64100, Teramo, Italy, spalmieri@unite.it
(2) Laboratory of Process Engineering and Environment, Faculty of Sciences and Techniques, Hassan II University of Casablanca, Mohammedia, Morocc

Tuesday, 15 March 2022
13:00 - 14:00

PS-C: Poster Session C
Biological samples I

P40. FPSE-HPLC-DAD Method for the Quantification of Anticancer Drugs in Human Whole Blood, Plasma, and Urine

E. Rosato[1], N. Tinari[2], A. Grassadonia[2], A. Tartaglia[1], D. Macerola[1], S. Piccolantonio[1], E. Sperandio[1], C. D'Ovidio[3], S. Carradori[1], H.I. Ulusoy[4], K.G. Furton[5], A. Kabir[5] , M. Locatelli[1]
(1) Department of Pharmacy, University of Chieti-Pescara "G. d'Annunzio", Via dei Vestini 31, 66100 Chieti, Italy, enrica.rosato@unich.it
(2) Department of Medical, Oral and Biotechnological Sciences, University of Chieti-Pescara "G. d'Annunzio", Chieti 66100, Italy
(3) Department of Medicine and Aging Sciences, Section of Legal Medicine, University of Chieti–Pescara "G. d'Annunzio", Chieti 66100, Italy
(4) Department of Analytical Chemistry, Faculty of Pharmacy, Cumhuriyet University, Sivas 58140, Turkey
(5) Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th St, Miami, FL 33199, USA

P41. FPSE-HPLC-PDA Determination of UV Filters Compounds from Cosmetic Products in Biological Matrices

M. Locatelli[1], A. Tartaglia[1], C. D'Ovidio[2], E. Rosato[1], M. Bonelli[2], K.G. Furton[3], A. Kabir[3]
(1) Department of Pharmacy, University of Chieti–Pescara "G. d'Annunzio", Via dei Vestini 31, Chieti 66100, Italy, marcello.locatelli@unich.it
(2) Department of Medicine and Aging Sciences, Section of Legal Medicine, University of Chieti–Pescara "G. d'Annunzio", Chieti 66100, Italy
(3) International Forensic Research Institute, Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th St, Miami, FL 33199, USA

P42. Coupled HPLC Affinity Columns for PSA Purification from Urine

A. Puerta, S. Lopez-Duque, M. de Fruto
Institute of Organic Chemistry (IQOG-CSIC), Juan de la Cierva 3. 28006 Madrid. Spain, angeldelapuerta@iqog.csic.es

P43. Synthesis of Crosslinked Zwitterionic Polymeric Ionic Liquid Sorbent to Determine Amyloid Beta Peptides in Biological Samples by *Fiber-in-tube* Solid-phase Microextraction and UHPLC-MS/MS

I.D. Souza[1], J.L. Anderson[2], M.E.C. Queiroz[1]
(1) Departamento de Química, Faculdade de Filosofia Ciências e Letras de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brazil, israeldsz@usp.br
(2) Department of Chemistry, Iowa State University, Ames, IA 50011, USA

P44. Application of Experimental Design in Measuring Histamine by UPLC in Fish Samples by PITC Derivation Method

S.M. Daryanavard, M. Ameri
Chemistry Department, University of Hormozgan, Bandar-Abbas, Iran, daryanavrd@hormozgan.ac.ir

P45. Determination of Volatile Salivary Biomarkers Using Solid-Phase Microextraction and GC-MS

M.E. Rosa[1,2], I. Negrín-Santamaría[2], F.A. e Silva[1], M.J. Trujillo-Rodríguez[2,3], M.G. Freire[1], V. Pino[2,3]
(1) CICECO, Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal, marguerita.rosa@ua.pt
(2) Laboratorio de Materiales para Análisis Químico (MAT4LL), Departamento de Química, Unidad Departamental de Química Analítica, Universidad de La Laguna (ULL), 38206 Tenerife, Spain
(3) Unidad de Investigación de Bioanalítica y Medioambiente, Instituto Universitario de Enfermedades Tropicales y Salud Pública de Canarias, Universidad de La Laguna (ULL), La Laguna, Tenerife, 38206, Spain

P46. Capsule Phase Microextraction of Antifungal and Anthelmintic Drugs from Human Urine Using *In Situ* Prepared Monolithic Sol-gel Polyethylene Glycol-Based Sorbent Media

N. Manousi[1], A. Kabir[2,3], K. G. Furton[2], P. D. Tzanavaras[1], C. K. Zacharis[4]
(1) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece, nmanousi@chem.auth.gr
(2) Department of Chemistry and Biochemistry, Florida International University, Miami, FL, USA
(3) Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, Dhaka-1207, Bangladesh
(4) Laboratory of Pharmaceutical Analysis, Department of Pharmaceutical Technology, School of Pharmacy, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece

P47. Characterisation of Pathogen-Specific Biomarkers in Bacterial Pneumonia with High-Capacity Sorptive Extraction (HiSorbTM) and Gas Chromatography – Mass Spectrometry (GC–MS)

R. Cole[1], W. Ahmed[2], S. Fowler[2], L. Bos[3], D. Fenn[3], R. Szafnauer[1], L. McGregor[4]
(1) Markes International Ltd, 1000B Central Park, Western Avenue, Bridgend, CF31 3RT, UK, rcole@markes.com
(2) University of Manchester, Oxford Rd, Manchester, M13 9PL, UK
(3) Amsterdam UMC, location AMC, Meibergdreef 9 1105 AZ Amsterdam, The Netherlands
(4) SepSolve Analytical Ltd, 4 Swan Court, Cygnet Park, Peterborough, PE7 8GX, UK

P48. Volumetric Absorptive Microsampling for the Analysis of CBD and its Metabolites

M. Cirrincione[1], J. Rudge[2], J. González-Rodríguez[3], M. Protti[1], L. Mercolini[1]
(1) Research Group of Pharmaco-Toxicological Analysis (PTA Lab), Department of Pharmacy and Biotechnology (FaBiT), Alma Mater Studiorum - University of Bologna, Via Belmeloro 6, 40126 Bologna, Italy, marco.cirrincione2@unibo.it
(2) Neoteryx LLC, 421 Amapola Ave, Torrance, 90501 CA, USA
(3) School of Chemistry, College of Science, University of Lincoln, Brayford Pool, LN67TS Lincoln, United Kingdom

P49. Dispersive Magnetic Solid Phase Extraction of Capsaicinoid Compounds from Human Serum by Liquid Chromatography and Quadrupole with Time-Of-Flight Mass Spectrometry

M.C. Rodríguez, N. Campillo, N. Arroyo Manzanares, P. Viñas
Department of Analytical Chemistry, Faculty of Chemistry, Regional Campus of International Excellence "Campus Mare Nostrum", University of Murcia, E-30100 Murcia, Spain, mconsolacion.rodriguez@um.es

P50. Evaluation of Clozapine and its Metabolites by HemaPEN Technology

C. Marasca[1,2], M. Protti[1], T. Vovk[3], C. Reist[4], A. Serretti[5], A. Cavalli[2], L. Mercolini[1]
(1) Research Group of Pharmaco-Toxicological Analysis (PTA Lab), Department of Pharmacy and Biotechnology (FaBiT), Alma Mater Studiorum - University of Bologna, Via Belmeloro 6, 40126 Bologna, Italy, camilla.marasca2@unibo.it
(2) Computational and Chemical Biology, Fondazione Istituto Italiano di Tecnologia (IIT), Via Morego 30, 16163 Genoa, Italy
(3) Faculty of Pharmacy, University of Ljubljana, Aškerčeva 7, 1000 Ljubljana, Slovenia
(4) VA Healthcare System, 5901 East 7th Street, Long Beach, California 90822, USA
(5) Department of Biomedical and Neuromotor Sciences (DIBINEM), Alma Mater Studiorum - University of Bologna, Viale C. Pepoli 5, 40123 Bologna, Italy

P51. On-Line Aptamer Affinity Solid-Phase Extraction Capillary Electrophoresis-Mass Spectrometry for the Analysis of Food Allergen Proteins

M. Vergara-Barberán[1,2], J.M. Herrero-Martínez[2], E. Simó-Alfonso[2], F. Benavente[1]
(1) Department of Chemical Engineering and Analytical Chemistry, Institute for Research on Nutrition and Food Safety (INSA·UB), University of Barcelona, 08028 Barcelona, Spain, maria.vergara@uv.es
(2) Department of Analytical Chemistry, University of Valencia, 46100 Burjassot, Valencia, Spain

P52. Optimization of Method Parameters for Electrospun Fiber Coated Thin Film Microextraction of Polar Cancer Biomarkers from Urine

M. Okutan[1], B. Salih[2], A.E. Eroğlu[3], E. Boyaci[1]
(1) Department of Chemistry, Middle East Technical University, Ankara 06800, Turkey, merve.okutan@metu.edu.tr
(2) Department of Chemistry, Hacettepe University, Ankara 06800, Turkey
(3) Department of Chemistry, Izmir Institute of Technology, Urla 35430, Izmir, Turkey

P53. Application of Bar Adsorptive Microextraction (BAµE) - An Eco-User-Friendly Approach for Screening Synthetic Cannabinoids in Oral Fluids

S.M. Ahmad[1,2,3], N.R. Neng[1,4], M.M. Maniés-Sequeira[5], H. Gaspar[4,5,6], J.M.F. Nogueira[1,4]
(1) Centro de Química Estrutural, Institute of Molecular Sciences, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade de Lisboa, Campo Grande, 1749-016 Lisboa, Portugal, smahmad@egasmoniz.edu.pt
(2) Molecular Pathology and Forensic Biochemistry Laboratory, Centro de Investigação Interdisciplinar Egas Moniz (CiiEM), Instituto Universitário Egas Moniz (IUEM), Campus Universitário - Quinta da Granja, Monte da Caparica, 2829-511 Caparica, Portugal
(3) Forensic and Psychological Sciences Laboratory Egas Moniz, Campus Universitário - Quinta da Granja, Monte da Caparica, 2829-511 Caparica, Portugal
(4) Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade de Lisboa, Campo Grande, 1749-016 Lisboa, Portugal
(5) BioISI - Biosystems & Integrative Sciences Institute, Faculdade de Ciências, Universidade de Lisboa, Campo Grande, 1749-016 Lisboa, Portugal
(6) MARE - Marine and Environmental Sciences Centre, Polytechnic of Leiria, 2520-630 Peniche, Portugal

P54. Biofluid Sampler: A New Gateway for Mail-in-Analysis of Whole Blood Samples

A. Tartaglia[1], H.I. Ulusoy[2], S. Ulusoy[3], F. Savini[4], S. Rossi[4], F. Santavenere[4], G.M. Merone[4], E. Bassotti[5], C. D'Ovidio[6], M. Bonelli[6], E. Rosato[1], K.G. Furton[7], A. Kabir[7], M. Locatelli[1]
1) Department of Pharmacy, University of Chieti-Pescara "G. d'Annunzio", Via dei Vestini 31, 66100 Chieti, Italy, angela.tartaglia@unich.it
(2) Department of Analytical Chemistry, Faculty of Pharmacy, Cumhuriyet University, Sivas 58140, Turkey
(3) Department of Chemistry, Faculty of Science, Cumhuriyet University, Sivas 58140, Turkey
(4) Pharmatoxicology Laboratory—Hospital "Santo Spirito", Via Fonte Romana 8, Pescara 65124, Italy
(5) R&D Department Eureka Lab Division, Chiaravalle, Italy
(6) Department of Medicine and Aging Sciences, Section of Legal Medicine, University of Chieti–Pescara "G. d'Annunzio", Chieti 66100, Italy
(7) Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th St, Miami, FL 33199, USA

Tuesday, 15 March 2022
13:00 - 14:00

PS-D **Poster Session D**
Biological Samples II

P55. Interaction Between Eltrombopag and Human Serum Albumin: Fluorescence and Electrochemical Studies

M. Yence, A. Cetinkaya, M.G. Caglayan, S.A. Ozkan
Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Tandogan, Ankara, Turkey, merve.yence@gmail.com .

P56. Ultrafiltration-based Sample Preparation and HPLC-UV Determination of Diclofenac in Human Plasma Samples

M. Nenni[1], A. Dogan[2], M. Çelebier[2]
(1) Cukurova University, Faculty of Pharmacy, Department of Analytical Chemistry, Adana, Turkey, merve.ecz@gmail.com
(2) Hacettepe University, Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey

P57. Development and Characterization of Magnetic SARS-CoV-2 Peptide-Imprinted Polymers

B. Fresco-Cala[1,2], S. Rajpal[2], T. Rudolf[2], B. Keitel[2], R. Groß[3], J. Münch[3], A.D. Batista[2], B. Mizaikoff[2,4]
(1) Departamento de Química Analítica, Universidad de Córdoba, Campus de Rabanales, Edificio Marie Curie, E-14071 Córdoba, España, beatriz_maria_89@hotmail.com
(2) Institute of Analytical and Bioanalytical Chemistry, Ulm University, 89081 Ulm, Germany
(3) Institute of Molecular Virology, Ulm University Medical Center, 89081 Ulm, Germany
(4) Hahn-Schickard Institute for Microanalysis Systems, 89077 Ulm, Germany

P58. Development of Salting-out Extraction Method for the Determination of Piroxicam from Polymeric Based Nanocarriers and Biological Samples

K.C. Tok[1], M. Gumustas[1], C.T. Sengel-Turk[2], G. Amasya[2], B. Bayram[3], E.A. Inan[4]
(1) Ankara University, Institute of Forensic Sciences, Department of Forensic Toxicology, Ankara, Turkey, kcantok@gmail.com
(2) Ankara University, Faculty of Pharmacy, Department of Pharmaceutical Technology, Ankara, Turkey
(3) Tokat State Hospital, Tokat, Turkey
(4) Ankara University, Faculty of Pharmacy, Department of Pharmacology, Ankara, Turkey

P59. Optimizing In-situ Synthesis of an Organic Monolithic Phase containing Anion Exchange Groups for Determination of Homocysteine and Homocysteic Acid in Biological Samples

I.G.C. Oliveira, M.E.C. Queiroz
Departamento de Química, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo. CEP 14.040-903, Av. Bandeirantes, 3900, Ribeirão Preto, SP, Brazil, igor.gustavo.oliveira@usp.br

P60. Development of Sensitive Analytical Methodology for Gemcitabine Based on HPLC-DAD after Magnetic Solid Phase Extraction

Ü. Polat[1], H.İ. Ulusoy[1], N.B. Alamdar[1], S. Ulusoy[2], A. Kabir[3], M. Locatelli[4]
(1) Sivas Cumhuriyet University, Faculty of Pharmacy, Department of Analytical Chemistry, Sivas, Turkey, gulsummorgul@gmail.com
(2) Sivas Cumhuriyet University, Vocational School of Health Service, Department of Pharmacy, Sivas, Turkey
(3) Florida International University, Department of Chemistry and Biochemistry, 11200 SW 8th St, Miami, FL 33199, USA
(4) University of Chieti–Pescara "G. d'Annunzio", Department of Pharmacy, Via dei Vestini 31, Chieti 66100, Italy

P61. Extraction of Residues of Veterinary Medicinal Products in the Larval Stages of *Apis Mellifera Iberiensis* (Larva, Prepupa, Pupa and New Born Bees)

A. Luna[1,2], E. Miguel[1], J.M. Flores[3] and MD. Hernando[1]
(1) CSIC-INIA National Institute for Agricultural and Food Research and Technology, Crta. de la Coruña, km 7.5, 28040, Madrid, Spain, albalunajimenez@gmail.com
(2) National University of Distance Education (UNED), Bravo Murillo, 38 Low level, 28015, Madrid, Spain
(3) Department of Zoology, University of Córdoba, 14071 Córdoba, Spain

P62. Determination of Phenobarbital at Trace Levels in Urine Samples by using Magnetic Solid Phase Extraction

E. Durgun[1], H.İ. Ulusoy[1], S. Kilit[1], Ü. Polat[1], A. Gürbüzer[2], A. Tartaglia[3], M. Locatelli[3], A. Kabir[4]
(1) Sivas Cumhuriyet University, Faculty of Pharmacy, Department of Analytical Chemistry, Sivas, Turkey, esocc35@gmail.com
(2) Sivas Cumhuriyet Unıversity, Sivas Vocational Scholl of Technical Sciences, Department of Plant and Animal Production, Sivas, Turkey
(3) University of Chieti–Pescara "G. d'Annunzio", Department of Pharmacy, Via dei Vestini 31, Chieti 66100, Italy
(4) Florida International University, Department of Chemistry and Biochemistry, 11200 SW 8th St, Miami, FL 33199, USA

P63. Sample Preparation Using Three-Phase Partitioning Systems for Improved Detection of Pentraxin-3 in Human Serum

M.S.M. Mendes, M.E. Rosa, F.A. e Silva, M.G. Freire
CICECO - Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, Aveiro, Portugal, msilvinamm@ua.pt

P64. Development of an In-Tube SPME/LC-MS/MS Method to Determine Amyloid-Beta Peptides in Human Cerebrospinal Fluid

C.F. Grecco, I.D. Souza, M.E.C. Queiroz
Departamento de Química, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo. CEP 14.040-903, Av. Bandeirantes, 3900, Ribeirão Preto, SP, Brazil, caroline.grecco@usp.br

P65. Quantitative Analysis of Endocannabinoid and Related Compound in Biological Matrices by Means µSPE-LC-MS/MS Analysis

F. Fanti[1], C. Montesano[2], F. Vincenti[2,3], G. Imparato[2], M. Maccarrone[4,5], M. Sergi[1], D. Compagnone[1]
(1) Faculty of Bioscience and Technology for Food, Agriculture and Environment, University of Teramo, Via Renato Balzarini 1, Teramo, 64100, Italy, ffanti@unite.it
(2) Department of Chemistry, Sapienza University of Rome, Piazzale Aldo Moro 5, Rome, 00185, Italy
(3) Department of Public Health and Infectious Disease, Sapienza University of Rome, Piazzale Aldo Moro 5, Rome, 00185, Italy
(4) Department of Biotechnological and Applied Clinical Sciences, University of L'Aquila, Via Vetoio, L'Aquila 67100, Italy
(5) European Center for Brain Research, Santa Lucia Foundation IRCCS, Via del Fosso di Fiorano 64, 00143 Rome, Italy

P66. Application of Parallel Artificial Liquid Membrane Extraction for the Analysis of Illicit Drugs in Oral Fluid

M. Croce[1,2], F. Vincenti[1,2], C. Montesano[2], M. Sergi[3], R. Curini[2]
(1) Sapienza University of Rome, Department of Public Health and Infectious Disease, Piazzale Aldo Moro,5, 00185 Rome, Italy, martina.croce@uniroma1.it
(2) Sapienza University of Rome, Department of Chemistry, Piazzale Aldo Moro,5, 00185 Rome, Italy
(3) University of Teramo, Faculty of Bioscience and Technology for Food, Agriculture and Environment, Via R. Balzarini,1, 64100, Italy

P67. Biomimetic Intestinal Absorption Through Liposome-Based Monolith Using Dispersive Solid Phase Extraction

M. Oliver[1], M.P. Garcia-Moll[1], E.F. Simó-Alfonso[2], J.M. Herrero-Martínez[2], M. Miró[1], E.J. Carrasco-Correa[2]
(1) FI-TRACE Group, Department of Chemistry, University of the Balearic Islands, Spain, miguel.oliver@uib.es
(2) CLECEM group, Department of Analytical Chemistry, University of Valencia, Spain

P68. New Perspectives for the Extraction of Naltrexone and its Metabolite Used in the Treatment of Opioid Use Disorder

C.H. Bozmaoglu, K.C. Tok, M. Gumustas, H.S. Suzen
Ankara University, Institute of Forensic Sciences, Department of Forensic Toxicology, Ankara, Turkey, cerenbozmaoglu@gmail.com

Tuesday, 15 March 2022
13:00 - 14:00

PS-E

Poster Session E
Environmental Analysis and New Technologies

P69. Assessment of Benzothiazoles, Benzotriazoles and Benzenesulfonamides in Environmental Waters Using an Experimental Design-PCA Optimized Synergistic Combination of Microextraction by Packed Sorbent with Programmed Temperature Vaporization-Gas Chromatography Tandem-Mass Spectrometry

A. Naccarato[1], R. Elliani[2], A. Tagarelli[2]
(1) CNR-Institute of Atmospheric Pollution Research, Division of Rende, UNICAL-Polifunzionale, I-87036 Arcavacata di Rende, (CS), Italy, attilio.naccarato@iia.cnr.it
(2) Dipartimento di Chimica e Tecnologie Chimiche, Università della Calabria, Via P. Bucci Cubo 12/C, I-87030 Arcavacata di Rende (CS), Italy

P70. Efficient Extraction of Lipophilic Odorants in Aquaculture Using High-Capacity Sorptive Extraction (HiSorb™) with Analysis b Gas Chromatography – Mass Spectrometry

R. Szafnauer[1], R. Harrington[2], R. Cole[1], G. Burr[3], B. Peterson[3]
(1) Markes International Ltd, 1000B Central Park Western Avenue, Bridgend, CF31 3RT, UK, rszafnauer@markes.com
(2) Aquaculture Research Institute, 17 Godfrey Dr., University of Maine, Orono, Maine, 04473, USA
(3) USDA-ARS-National Cold Water Marine Aquaculture Center, 25 Salmon Farm Road Franklin, Maine, 04634, USA

P71. Magnetic *Hydrophilic-Lipophilic Balance* Tape in Water Sampling Devices

F.A. Casado-Carmona, R. Lucena, S. Cárdenas
Affordable and Sustainable Sample Preparation (AS2P) research group, Departamento de Química Analítica, Instituto Universitario de Investigación en Química Fina y Nanoquímica IUNAN, Universidad de Córdoba, Campus de Rabanales, Edificio Marie Curie, E-14071, Córdoba, Spain, g92cascf@uco.es

P72. Fabrication of a MOF@Cotton Composite as a New Sorbent Phase for the Fabric Phase Sorbitive Extraction and Passive Sampling of Non-Polar Organic Compounds from Natural Waters

D.L. Giokas[1,2], V. Gouma[1], A.D. Pournara[1], M.J. Manos[1,2]
(1) Department of Chemistry, University of Ioannina, 45110, Ioannina, Greece, dgiokas@uoi.gr
(2) Institute of Materials Science and Computing, University Research Centre of Ioannina, GR-45110, Ioannina, Greece

P73. Extraction and Preconcentration of Organophosphorus Pesticides from Water Samples Using *In Situ* Synthesized Monolithic Sol-Gel Octadecyl Capsule Phase Microextraction Media

A. Ferracane[1,2], N. Manousi[2,3], A. Kabir[4,5], K. G. Furton[4], P. Q. Tranchida[1], G. A. Zachariadis[3], L. Mondello[1,6], V. F. Samanidou[3], E. Rosenberg[2]
(1) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy, aferracane@unime.it
(2) Institute of Chemical Technologies and Analytics, Vienna University of Technology, 1060 Vienna, Austria
(3) Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece
(4) International Forensic Research Institute, Department of Chemistry and Biochemistry, Florida International University, Miami, FL, USA
(5) Department of Pharmacy, Faculty of Allied Health Science, Daffodil International University, Dhaka-1207, Bangladesh
(6) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy

P74. Recycled Rubber Surfaces: Concern About the Presence of Hazardous Substances

D. Armada[1], M. Celeiro[1], T. Dagnac[2], J. de Boer[3], M. Llompart[1]
(1) CRETUS, Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain, daniel.armada.alvarez@usc.es
(2) Agronomic Research Centre (AGACAL-CIAM), Unit of Organic Contaminants, Apartado 10, E-15080, A Coruña, Spain
(3) Department of Environment and Health (E&H), Vrije Universiteit, De Boelelaan 1085, 1081 HV Amsterdam, Netherlands

P75. Development of an Analytical Methodology to Determine Substitution Herbicides in Soil Samples

L. Vazquez[1], A. Castiñeira-Landeira[1], H. Gonzalez-Leirado[1], M. Celeiro[1], T. Dagnac[2], M. Llompart[1]
(1) CRETUS. Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain, lua.vazquez.ferreiro@usc.es
(2) Galician Agency for Food Quality - Agronomic Research Centre (AGACAL-CIAM) – Unit of Organic Contaminants, Apartado 10, E-15080, A Coruña, Spain

P76. Preparation, Characterization and Application of C18 Thermally Immobilized onto Titanized Silica as Sorbent for Solid-Phase Extraction

C.G.A. da Silva[1], P. Sassaki[1,2]
(1) University of Mato Grosso (UFMT), Av. Fernando Correa da Costa, 2367, Boa Esperança, Cuiabá-MT, 78060-900, Brazil, profacarlag@gmail.com
(2) Butantan Institute, Av. Vital Brasil, 1500, Butantan, São Paulo-SP, 05503-900, Brazil

P77. Determination of PFAS in Water According to EU2020/2184 and DIN38407-42 Using Online-SPE-LC-MS/MS

T. Brandsch
GERSTEL GmbH & Co. KG, Eberhard-Gerstel-Platz 1, 45473 Mülheim, Germany, thomas_brandsch@gerstel.de

P78. Combining Low-Density Solvent Based Microextraction with Pulsed Splitless Injection for High Sensitivity GC-MS Analysis of Polycyclic Aromatic Hydrocarbons, Phthalates, and Pesticide Residues in Infant Formulas

M.H. Petrarca, E. Vicente, S.A.V. Tfouni
Centro de Ciência e Qualidade de Alimentos, Instituto de Tecnologia de Alimentos - ITAL, Avenida Brasil nº 2880, 13070-178, Campinas, SP, Brasil, petrarcamh@gmail.com

P79. Novel Automated Sample Clean-up: First Comprehensive Evaluation of Different Filtration Devices for x-y-z Robots

M.A. Althoff[1], T. Preiswerk[2], M.F. Mirabelli[2], S.M. Wiens[1,3], A. Fatisson[1]
(1) Bayer AG, Crop Science Division, Alfred-Nobel-Straße 50, 40789 Monheim, Germany, andre.althoff@bayer.com
(2) CTC Analytics AG, Industriestrasse 20, 4222 Zwingen, Switzerland
(3) Ludwig-Maximilian University, Dpt. of Chemistry, Butenandtstrasse 5-13 (Haus D), Munich, Germany

P80. An Insight into the Use of Polyethersufone Membrane as a Single-Phase Passive Sampler for Emerging Contaminants in Water

C. Scapuzzi, H. MacKeown, B. Benedetti, M. Baglietto, M. Di Carro, E. Magi
University of Genoa, Via Dodecaneso 31, Genoa, Italy, chiara.scapuzzi@edu.unige.it

P81. Enhanced Analyte Extraction with Automated Multi-Phase High-Capacity Sorptive Extraction (HiSorb) for GC-MS

L. Hearn[1], R. Szafnauer[1], J. Mayser[2]
(1) Markes International Ltd, 1000B Central Park, Western Avenue, Bridgend, CF31 3RT, UK, lhearn@markes.com
(2) Markes International GmbH, Bieberer Straße 1-7, 63065 Offenbach, Germany

P82. Functionalized Ionic Liquid Based on 2-Mercaptobenzothiazole for Solid-Liquid Extraction of Cd(II) and Pb(II) from a Sediment Sample

J. Mušović[1], S. Papović[2], M. Vraneš[2], S. Ražić[3], S. Gadžurić[2], T. Trtić-Petrović[1]
(1) Laboratory of Physics, Vinča Institute of Nuclear Sciences, National Institute of the Republic of Serbia, University of Belgrade, P.O.Box 522, Belgrade, Serbia, jasmina.musovic@vin.bg.ac.rs
(2) Faculty of Pharmacy - Department of Analytical Chemistry, University of Belgrade, Vojvode Stepe 450, Belgrade, Serbia

(3) Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, University of Novi Sad, Trg Dositeja Obradovića 3, 21000 Novi Sad, Serbia

P83. Dual SPE Purification, Followed by Offline Derivatization and HPLC-ESI-MS/MS Analysis for the Quantification of Estrogenic Compounds at Ultra-Trace Level: Method Development, Validation, and Screening of Belgian Surface Water

A. Glineur[1], K. Nott[2], P. Carbonnelle[2], G. Purcaro[1]
(1) AgroBioChem Department, Laboratory of Analytical Chemistry, University of Liège, Gembloux Agro-Bio Tech, Passage des Déportés 2, 5030 Gembloux, Belgium, alex.glineur@hotmail.com
(2) La Société Wallonne des Eaux, Rue de la Concorde 41, 4800 Verviers, Belgium

P84. Dispersive Solid-Phase Extraction (dSPE) Using Cu Functionalized Metal-Organic Frameworks (MOFs) for the Determination of Metals in Gasoline Samples

M.A. Aguirre[1], A.S. Lorenzetti[2], E. Vidal[2], M.B. Álvarez[2], C. Domini[2], J. Silvestre-Albero[3], L. Vidal[1], A. Canals[1]
(1) Departamento de Química Analítica, Nutrición y Bromatología, Instituto Universitario de Materiales, Universidad de Alicante, P. O. Box 99, 03080 Alicante, Spain, aguirre.pastor@ua.es
(2) INQUISUR, Departamento de Química, Universidad Nacional del Sur (UNS)-CONICET, Av. Alem 1253, 8000 Bahía Blanca, Argentina
(3) Laboratorio de Materiales Avanzados, Departamento de Química Inorgánica-Instituto Universitario de Materiales, Universidad de Alicante, P. O. Box 99, 03080 Alicante, Spain

P85. Analysis of Organophosphorus Pesticides by HS-SPME

C. Lancioni[1], M. Tascon[2,3], R. J. Candal[2], C. B. Castells[1]
(1) Laboratorio de Investigación y Desarrollo de Métodos Analíticos, LIDMA, Facultad de Ciencias Exactas (UNLP, CIC-PBA), La Plata, Buenos Aires, Argentina, carlinalancioni@quimica.unlp.edu.ar
(2) Instituto de Investigación e Ingeniería Ambiental (3iA-CONICET-UNSAM), San Martín, Buenos Aires, Argentina
(3) Centro de Estudios sobre Patrimonios y Ambiente (CEPyA-3iA-EAyP), UNSAM, San Martín, Buenos Aires, Argentina

P86. Water-Compatible Molecularly Imprinted Polymer for Solid-Phase Extraction of Triazines from Environmental Waters

E. Turiel, M. D. Álvarez, A. M. Martín-Esteban
Departamento de Medio Ambiente y Agronomía, INIA-CSIC, Carretera de A Coruña km 7.5, 28040 Madrid, Spain, turiel@inia.es

P87. Optimization and Automation of a Rapid and Selective Analysis of Fatty Acid Methyl Esters from Aqueous Samples by HS-SPME Arrow GC-MS/MS

L.K. Tintrop, M.A. Jochmann, T.C. Schmidt
Instrumental Analytical Chemistry, University of Duisburg-Essen, Universitätsstraße 5, 45141 Essen, Germany, lucie.tintrop@uni-due.de

Wednesday, 16 March 2022
13:00 - 14:00

GSAC-1 Flash Poster Presentations

Food & Environmental Applications

FPP1. Carbon Fibers as Green and Sustainable Sorbent for the Extraction of Isoflavones from Environmental Waters

J.L. Benedé[1,2], A. Chisvert[2], R. Lucena[1], S. Cárdenas[1]
(1) Affordable and Sustainable Sample Preparation (AS2P) Research Group, Departamento de Química Analítica, Instituto Universitario de Investigación en Química Fina y Nanoquímica IUNAN, Universidad de Córdoba, Campus de Rabanales, Edificio Marie Curie (anexo), E-14071, Córdoba, Spain, benede@uv.es
(2) GICAPC Research Group, Department of Analytical Chemistry, University of Valencia, 46100, Burjassot, Valencia, Spain

FPP2. Medium-Scale Ambient Temperature System (MSAT) as a Green Strategy to Obtain Extracts Rich in Bioactive Compounds from Agri-Food Residues

M. Celeiro[1], A. Castillo[1], A. Rosalowska[2], C. Garcia-Jares[1], M. Lores[2]
(1) CRETUS, Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain, maria.celeiro.montero@usc.es
(2) LIDSA, Department of Analytical Chemistry, Nutrition and Food Science, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain

FPP3. Direct Injection Followed by GC-MS/QqQ for VOCs Identification in Wine Aroma Fingerprint Studies

P. Avino[1], E. Guerriero[2], M. Iorizzo[1], M. Cerasa[2], I. Notardonato[1], B. Testa[1], F. Letizia[1], A. Iannone[1], C. Di Fiore[1], S. Passarella[1], M.V. Russo[1]
(1) Department of Agricultural, Environmental and Food Sciences (DiAAA), University of Molise, Via De Sanctis, I-86100 Campobasso, Italy, avino@unimol.it
(2) Institute of Atmospheric Pollution Research (IIA), National Research Council (CNR), Rome Research Area-Montelibretti, I-00015 Monterotondo Scalo, Italy

FPP4. Thermal Analytical Methodology for Determining Micro-Polyethylene and Polystyrene Plastic Content in Organic Matrices

A. Martín de la Fuente[1], F.C. Marhuenda-Egea[2], M. Ros[1], J.A. Pascual[1], J.A. Saez-Tovar[3], E. Martinez-Sabater[3], R. Peñalver[4]
(1) Department of Soil and Water Conservation and Organic Waste Management, Centro de Edafologia y Biologia Aplicada del Segura, CEBAS-CSIC, P.O. Box 4195, Murcia 30080, Spain, amartin@cebas.csic.es
(2) Department of Agrochemistry and Biochemistry, Multidisciplinary Institute for Environmental Studies Ramon Margalef, University of Alicante, Alicante, Spain
(3) GIAAMA Research Group, Centro de Investigación e Innovación Agroalimentaria y Agroambiental (CIAGRO-UMH), Agrochemistry and Environment Department, Miguel Hernández University, Orihuela, 03312 Alicante, Spain
(4) Department of Analytical Chemistry, Faculty of Chemistry, Regional Campus of International Excellence "Campus Mare Nostrum", University of Murcia, E-30100 Murcia, Spain

FPP5. Sustainable Valorization of Winery Wastewater Using Bio-based Solvents to Extract Natural Antioxidants

R. Cañada, B. Sáenz de Miera, I. Díaz, M. Rodríguez, E.J. González, M. González-Miquel
Universidad Politécnica de Madrid, Dpto. Ingeniería Química Industrial y del Medio Ambiente, ETSI Industriales, C/ José Gutiérrez Abascal 2, Madrid, 28006, Spain, raquel.canadas@upm.es

FPP6. Novel Clean-Up and Analysis Methods of Dioxins in Wastes

P. Damato[1,2], A. Fornaro[3], G. Intini[1], C.D. Calvano[2], T.R.I. Cataldi[2]
(1) Tecnologia e Ambiente T&A s.r.l., Strada Provinciale 237 per Noci, n° 8, 700017, Putignano, (BA), Italy, p.damato@tecnologiaeambientesrl.com
(2) Dipartimento di Chimica, Università degli Studi di Bari "Aldo Moro", Via E. Orabona, n°4, 70125, Bari (BA), Italy
(3) Lab Service Analytica s.r.l., Via Emilia n° 51/C, 4011 Anzola Emilia (BO), Italy

FPP7. A Solvent-Free Sample Preparation Technique for Residual Fumigants on Foodstuffs: Multi-Step Enrichment–Headspace–Trap Analysis with Gas Chromatography–Mass Spectrometry

R. Cole[1], L. Hearn[1], J.P. Mayser[2], R. Szafnauer[1]
(1) Markes International Ltd, 1000B Central Park Western Avenue, Bridgend, CF31 3RT, UK, rcole@markes.com
(2) Markes International, Bieberer Straße 1-7, 63065 Offenbach am Main, Germany

FPP8. Use of Headspace SPME-GC×GC-ToF MS with Hydrogen of Carrier Gas for the Chemical Characterization of Food Volatilomes

M. Galletta[1], M. Zoccali[2], P.Q. Tranchida[1], L. Mondello[1,3,4]
(1) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy, micgalletta@unime.it
(2) Department of Mathematical and Computer Science, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy
(3) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
(4) Department of Sciences and Technologies for Human and Environment, University Campus Bio-Medico of Rome, Rome, Italy

FPP9. Capillary Ion Chromatography: A Green and Sustainable Analytical Technique for Analysis of Food Additives and Contaminants

T. D'Amore, A. Di Taranto, M. Immarino
Department of Chemistry, Istituto Zooprofilattico Sperimentale di Puglia e Basilicata, Via Manfredonia 20, 71121, Foggia, Italy, teresa.damore@izspb.it

FPP10. Food Security Assessment in the Scope of the PERVEMAC II Project. Cereals from Macaronesia Region 2017-2020

B. Socas-Rodríguez, R. Rodríguez-Ramos, Á. Santana-Mayor, M.Á. Rodríguez-Delgado
Departamento de Química, Facultad de Ciencias, Universidad de

Wednesday, 16 March 2022
13:00 - 14:00

GSAC-2 Flash Poster Presentations

Green & Sustainable Methods

FPP11. Cationic Surfactants Quantification in COVID-19 Disinfectants by Potentiometric Surfactant Sensor

N. Sakač[1], D. Madunić-Čačić[1,2], M. Jozanović[3]
(1) Faculty of Geotechnical Engineering, University of Zagreb, 42000 Varaždin, Croatia, nsakac@gfv.unizg.hr
(2) Saponia Chemical, Pharmaceutical and Foodstuff Industry, Inc., 31000 Osijek, Croatia
(3) Department of Chemistry, University of Osijek, HR-31000 Osijek, Croatia

FPP12. Monitoring of the PAHs in Simulated Natural and Artificial Fires by HPLC-DAD-FLD with the Application of Multi-Component Integrated Calibration Method

P. Świt, J. Orzeł, S. Maślanka
Institute of Chemistry, Faculty of Science and Technology, University of Silesia in Katowice, 9 Szkolna Street, 40-006 Katowice, Poland, pawel.swit@us.edu.pl

FPP13. Supercritical Fluid Chromatography as a Sustainable Alternative to Normal Phase Liquid Chromatography for Chiral Separations of Cannabinoids

A. Buratti[1], S. Felletti[1], M. Catani[1], C. De Luca[1], G. Compagnin[1], F. Gasparrini[2], G. Mazzoccanti[2], A. Cavazzini[1]
(1) Department of Chemical, Pharmaceutical and Agricultural Sciences, University of Ferrara, Ferrara 44121, Italy, brtlsn3@unife.it
(2) Department of Drug Chemistry and Technology, "Sapienza" University of Rome, P. le Aldo Moro 5, Rome 00185, Italy

FPP14. A Preliminary Study on the Use of Carnosine as Sequestering Ligand for Metal Cations in Aqueous Solution

C. Abate, C. Foti, O. Giuffrè, A. Piperno, A. Scala
Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale Ferdinando Stagno D'Alcontres 31, 98166, Messina, Italy, cabate@unime.it

FPP15. Use of Supercritical Fluids to Online Extract and Analyze Chiral Pesticides in Hemp Seeds

M.R. Testa Camillo[1], M. Russo[1], P. Dugo[1,2], L. Mondello[1,2,3]
(1) Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy, testacamillom@unime.it
(2) Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
(3) Department of Sciences and Technologies for Human and Environment, University Campus Bio-Medico of Rome, Rome, Italy

FPP16. A Novel Silica Based Molecularly Imprinted Polymer Sensor for the Sensitive Assay of a Bisphenol Analogue

S.I. Kaya[1,2], M.E. Corman[1,3], L. Uzun[4], S.A. Ozkan[1]
(1) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, 06560, Ankara, Turkey, ikaya19.07@hotmail.com
(2) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey
(3) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Biochemistry, Ankara, Turkey
(4) Hacettepe University, Faculty of Science, Department of Chemistry, Ankara, Turkey

FPP17. Direct Mass Spectrometry Using SPME Coupled to Liquid Electron Ionization and Chemical Ionization: A New Green Approach in Direct Analysis

N. Marittimo[1], G. Famiglini[1], P. Palma[1,2], A. Cappiello [1,2], M.Saeed[3], S.Perry[3], P.Navarro[3]
(1) University of Urbino, Department of Pure and Applied Sciences, Laboratory LC-MS, Urbino, Italy, n.marittimo@campus.uniurb.it
(2) Vancouver Island University, Department of Chemistry, Nanaimo, BC, Canada
(3) Syngenta, Bracknell, United Kingdom

FPP18. Chromatography Miniaturization to Green and Enhanced Protein Quantification with Elemental Mass Spectrometry

J. Ruiz-Allica, A. Jiménez Nosti, L. Cid Barrio, F. Calderón-Celis, J. Ruiz Encinar
University of Oviedo, Department of Physical and Analytical Chemistry, University of Oviedo, Av. Julián Clavería 8, 33006, Oviedo, Spain, uo284486@uniovi.es

FPP19. Micellar Liquid Chromatography: An Eco-friendly Alternative to Conventional HPLC Method

P. Pahade[1], A. Durgbanshi[2], D. Bose[1]
(1) Department of Criminology and Forensic Science, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.), India, pahadepriyanka09@gmail.com
(2) Department of Chemistry, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.), India

FPP20. Effective Remediation of Several Families of Antibiotics in Aqueous Samples Using Bio Metal-Organic Frameworks

H. Martínez-Pérez-Cejuela[1], M. Feltrer-Montesinos[1], C. Negro[2], E.F. Simó-Alfonso[1], J. Ferrando–Soria[2], E. Pardo[2], J.M. Herrero-Martínez[1]
(1) Department of Analytical Chemistry, University of Valencia, Dr. Moliner, 50, 46100 Burjassot, Spain, Hector.Martinez-Perez@uv.es
(2) Molecular Science Institute, University of Valencia, 46980 Paterna, Valencia, Spain

Wednesday, 16 March 2022
13:00 - 14:00

GSAC-3 Flash Poster Presentations

Sensors

FPP21. A Sensitive Electrochemical Platform Based on MoS_2/Metal Oxide Nanocomposite for Drug Sensing Application

E. Er
Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, 06560, Ankara, Turkey, eer@ankara.edu.tr

FPP22. Titanium Dioxide Assisted-Antibiotic Imprinted Alginate Films for Selective Detection of Vancomycin from Aqueous and Serum Samples Via a Greener Synthesis Route

M.E. Çorman[1,2], A. Cetinkaya[2], E. Yıldız[3], S.I. Kaya[1,4], L. Uzun[3], S.A. Ozkan[2]
(1) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey, mehmetemincorman@gmail.com
(2) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Biochemistry, Ankara, Turkey
(3) Hacettepe University, Faculty of Science, Department of Chemistry, Ankara, Turkey
(4) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey

FPP23. Investigating the Electrochemical Performance and the Structure Changes of Anatase TiO2 Nanotube Arrays Electrode in Ionic Liquid Electrolyte after the Galvanostatic Cycling

A. Roganović1, S. Papović1, N. Cvjetićanin2, M. Vraneš1, X. Chen3, T. T. Borović1, J. Panić1, S. Gadžurić1
(1) Faculty of Science, Department of Chemistry, Biochemistry and Environmental Protection, University of Novi Sad, Trg Dositeja Obradovića 3, Novi Sad 21000, Serbia, roganovic.sandra@gmail.com
(2) Faculty of Physical Chemistry, University of Belgrade, Studentski trg 12-16, Belgrade 11158, Serbia
(3) Vehicle Energy and Safety Laboratory, Department of Mechanical Engineering, Ningbo University of Technology, Ningbo 315336, P. R. China

FPP24. Chemometrics-Assisted Voltammetric Determination of Entacapone in the Presence Levodopa and Carbidopa in Tablet Dosage Form

A. Safarnejad[1], F. Budak[1], A. Cetinkaya[1], B. Dogan-Topal[1], H. Abdollahi[2], S.A. Ozkan[1]
(1) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Tandogan, Ankara, Turkey, azam.safarnejad@iasbs.ac.ir
(2) Department of Chemistry, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan 45137-66731, Iran

FPP25. Potentiometric Determination of Nonionic and Cationic Surfactants in Cleaning and Disinfecting Agents by New High Sensitive NS-Sensor

D. Madunić-Čačić[1,2], N. Sakač[2], M. Jozanović[3]
(1) Saponia, Chemical, Pharmaceutical and Foodstuff Industry, Inc., 31000 Osijek, Croatia, dubravka.madunic-cacic@saponia.hr
(2) Faculty Of Geotechnical Engineering, University of Zagreb, 42000 Varaždin, Croatia
(3) Department of Chemistry, Josip Juraj Strossmayer University of Osijek, 31000 Osijek, Croatia

FPP26. A Sensitive and Selective Electrochemical Sensor Fabricated from Multi-Walled Carbon Nanotubes and Iron (III) Oxide Nanoparticles for the Detection of Levodopa

F. Budak[1], A. Safarnejad[2], A. Çetinkaya[1], B.D. Topal[1], H. Abdollahi[2], S.A. Özkan[1]
(1) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Tandogan, Ankara, Turkey, ftmbdkk04@gmail.com
(2) Department of Chemistry, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan 45137-66731, Iran

FPP27. Natural Compounds as Strategic Tools for Carbon Nanomaterials-Based Sensors

F. Silveri, F. Della Pelle, A. Scroccarello, Q.U.A. Bukhari, S. Fiori, D. Compagnone
Faculty of Bioscience and Technology for Food, Agriculture and Environment, University of Teramo, Campus "Aurelio Saliceti" via R. Balzarini 1, 64100 Teramo, Italy, fsilveri@unite.it

FPP28. Modulating the Stacking Modes of Nanosized Metal-Organic Frameworks by Morphology Engineering for Isomer Separation

Sha-Sha Meng, Ming-Xu, T. Zhi-Yuan Gu
Jiangsu Key Laboratory of Biofunctional Materials, Jiangsu Collaborative Innovation Center of Biomedical Functional Materials, College of Chemistry and Materials Science, Nanjing Normal University, Nanjing, 210023, China, 15651666851@163.com

FPP29. Modulating the Stacking Modes of Metal-Organic Frameworks Nanosheets Through Host-Guest Noncovalent Interactions for GC Separation

W.Q. Tang, M. Xu, Z.Y. Gu
Nanjing Normal University, 1 Wenyuan Road, Qixia District, Nanjing, China, tangwenqi1106@163.com

FPP30. Portable and Disposable Electrochemical Sensors Based on Ion Imprinted Polymers Applied for the Environmental Monitoring of Metal Ions in Water

S. Di Masi, N.A. Manrique Rodriguez, M. Costa, C. Malitesta
Laboratorio di Chimica Analitica, Università del Salento, Via Monteroni, 73100 (Lecce), sabrina.dimasi@unisalento.it

Wednesday, 16 March 2022
13:00 - 14:00

GSAC-4 Breaking Room
Miscellaneous

PP1. Contamination and Spatial Distribution of PAHs in Urban Soils of Santiago de Compostela

C. Herbón[1], M. Celeiro[2], D. Guada[2], R. Paradelo[1], M.T. Barral[1], C. García-Jares[2]
(1) CRETUS, Department of Soil Science and Agricultural Chemistry, Faculty of Pharmacy, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain, cecilia.herbon@usc.es
(2) CRETUS, Department of Analytical Chemistry, Nutrition and Food Science, Faculty of Chemistry, Universidade de Santiago de Compostela, E-15782, Santiago de Compostela, Spain

PP2. Characterization of Ellagitannins in Walnuts Shells Via LC-DAD-MS Analysis

G. Ventura[1], G. Carbone[1], D. Blasi[1], T.R.I. Cataldi[1,2], C.D. Calvano[1,2]
(1) Dipartimento di Chimica Università degli Studi di Bari Aldo Moro, Bari, Italy, giovanni.ventura@uniba.it
(2) Centro Interdipartimentale SMART,Università degli Studi di Bari Aldo Moro, Bari, Italy

PP3. Green Photosensitisers for the Degradation of Selected Pesticides of High Risk in Most Susceptible Food: A Safer Approach

M. Zubair[1], A. Baig[2]
(1) University of Gujrat, Gujrat, Pakistan, Muhammad.zubair@uog.edu.pk
(2) University of Gujrat, Gujrat, Pakistan

PP4. Selective Adsorption of Plant Secondary Metabolites by Solid Sorbents

S. Fiorito, S. Genovese, F. Epifano
(1) Dipartimento di Farmacia, University "G. d'Annunzio" Chieti – Pescara, Via dei Vestini 31, 66100 Chieti Scalo (CH), Italy, serena.fiorito@unich.it

PP5. On-line Evaluation of Polar Airborne Compounds In-Continuous Monitoring by Solid-Phase Microextraction/Gas Rhromatography

S. Dugheri[1], G. Cappelli[2], R. Gori[3], D. Squillaci[2], L. Trevisani[2], E. Bucaletti[2], J. Ceccarelli[2], N. Mucci[2], G. Arcangeli[2], F. Degli Esposti[4], D. Peroni[5]
(1) Azienda Ospedaliero-Universitaria Careggi, Largo P. Palagi 1, Firenze, Italy, stefano.dugheri@unifi.it
(2) Dipartimento di Medicina Sperimentale e Clinica, Università degli Studi di Firenze, Largo P. Palagi 1, Firenze, Italy
(3) Dipartimento di Ingegneria Civile e Ambientale, Università degli Studi di Firenze, Via di Santa Marta 3, Firenze, Italy
(4) Chromline Srl, Viale Alcide De Gasperi, Prato, Italy
(5) SRA Instruments S.p.A, Via alla Castellana 3, Cernusco sul Naviglio (MI), Italy

PP6. A Multi-Analytical Approach for the Characterization of Organic Matter in Agricultural Soils Amended with Biochar

A. Rombolà[1], C. Torri[2], I. Vassura[3], B. Rizzi[1], D. Fabbri[1]
(1) Department of Chemistry "Giacomo Ciamician", University of Bologna, c/o Tecnopolo di Rimini, via Dario Campana 71, 47192, Rimini, Italy, alessandro.rombola@unibo.it
(2) Department of Chemistry "Giacomo Ciamician", University of Bologna, Campus di Ravenna, via Sant'Alberto 163, 48123, Ravenna, Italy
(3) Department of Industrial Chemistry "Toso-Montanari", University of Bologna, Campus di Rimini, via Dario Campana 71, 47922, Rimini, Italy

PP7. A Artificial Intelligence (AI) Smelling Machines Based on Multidimensional Chromatography: How Information Capacity and Flexibility Make Greener an Analytical Tool

C. Cordero[1], S. Squara[1], A. Caratti[1], E. Liberto[1], S.E. Reichenbach[2,3], C. Bicchi[1]
(1) Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, Via Pietro Giuria 9, I-10125 Torino, Italy, chiara.cordero@unito.it
(2) University of Nebraska-Lincoln, MS 0115, Lincoln NE 68588-0115, USA
(3) GC Image LLC, PO Box 57403, Lincoln NE 68505-7403, USA

PP8. SPE-Based Active Air Sampling Method for Hexachlorocyclohexane (HCH) Determination in Contaminated Areas

A. Méndez[1], M. Celeiro[2], M. Fabelo, Z. Chaos[1], C. García-Jares[2], C. Monterroso[1]
(1) CRETUS, Department of Soil Science and Agricultural Chemistry, Faculty of Biology, Universidade de Santiago de Compostela, 15782-Santiago, Spain, aldara.mendez@rai.usc.es
(2) CRETUS. Department of Analytical Chemistry, Nutrition and Food Science, Faculty of Chemistry, Universidade de Santiago de Compostela, 15782-Santiago, Spain

PP9. Lab-on-Paper Analytical Device for Extraction-Free Analysis of Olive Oil Polyphenols

Annalisa Scroccarello, Flavio Della Pelle, Michele Del Carlo, Dario Compagnone
Faculty of Bioscience and Technology for Food, Agriculture and Environment University of Teramo, Via Renato Balzarini 1, 64100, Teramo, Italy (ascroccarello@unite.it).

PP10. Speciation of Metronidazole with Pb^{2+} and Cd^{2+} in Aqueous Solution for Applications in Natural Waters

F. Carnamucio, C. Foti, O. Giuffrè
Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Viale F. Stagno d'Alcontres 31, 98166 Messina, carnamuciof@unime.it

PP11. Characterization of Different Italian Ricotta Cheeses by a Rapid and Sustainable Spectroscopic Method as a Preliminary Study to Detect Adulteration

M. Foschi[1], A. Biancolillo[1], F. Di Donato[1], A.A. D'Archivio[1]
(1) Department of Physical and Chemical Sciences, University of L'Aquila, Via Vetoio 67100, Coppito, L'Aquila, Italy, martina.foschi@univaq.it

PP12. Potential of Brassica Napus for Phytoextraction of Heavy Metals from Soil and Sediment

N. Djukanovic[1], J. Beljin[1], T. Zeremski[2], J. Trickovic[1], S. Roncevic[1], N. Stojanov[2], S. Maletic[1]
(1) Department of Chemistry, Biochemistry and Environmental Protection, Faculty of Sciences, University of Novi Sad, Trg Dositeja Obradovica 3, Novi Sad, 21000, Serbia, nina.djukanovic@dh.uns.ac.rs
(2) Institute of Field and Vegetable Crops, Maksima Gorkog 30, Novi Sad, 21000, Serbia

PP13. Application of Experimental Design in Measuring Histamine by UPLC in Fish Samples by PITC Derivation Method

S.M. Daryanavard, M. Ameri
Chemistry Department, University of Hormozgan, Bandar-Abbas, Iran, daryanavrd@hormozgan.ac.ir

PP14. Spectrophotometric Method Development of Chloramphenicol Analysis in the Shrimp Based on Diazotization Reaction at Room Temperature

A. Wafi[1], G. Supriyanto[2], T.S. Tjahjandarie[2]
(1) Department of Pharmacy, Faculty of Medicine and Health Sciences, Universitas Islam Negeri Maulana Malik Ibrahim, Jl. Gajayana No. 50, Malang, 65143, Indonesia, wafi@uin-malang.ac.id
(2) Department of Chemistry, Faculty of Science and Technology, Airlangga University, Campus C Mulyorejo, Surabaya, 60115, Indonesia

PP15. Fabric Phase Sorptive Extraction: A Total Sample Preparation Solution to Meet the Demands of 21st Century High Throughput Analytical/Bioanalytical Laboratories

A. Kabir
Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th Street, Miami, Florida, USA, akabir@fiu.edu

PP16. Developing and Validation of a High-Performance Liquid Chromatography Method for the Determination of Combined Perindopril, Indapamide and Amlodipine from Pharmaceutical Preparations

S.A. Ozsar[1,2,3], M. Celebier[4], S. Altinoz[5]
(1) Ankara University, The Graduate School of Health Sciences, 06110 Ankara, Turkey, saozsar@gmail.com
(2) Ankara University, Faculty of Pharmacy Department of Analytical Chemistry, 06560 Ankara, Turkey
(3) Turkish Medicine and Medical Device Agency, Clinical Trials Department, 06520 Ankara, Turkey
(4) Hacettepe University, Faculty of Pharmacy Department of Analytical Chemistry, 06230 Ankara, Turkey
(5) Başkent University, Faculty of Pharmacy Department of Analytical Chemistry, 06790 Ankara, Turkey

PP17. Extraction of Natural Products Based on Deep Eutectic System

W. Bi[1], M. Liu[1], D. Chen[2]
(1) College of Chemistry and Materials Science, Nanjing Normal University, Wenyuan Road, Nanjing, 210023, biwentao@njnu.edu.cn
(2) Department of Chemistry, University of British Columbia, 2329 West Mall, Vancouver, BC V6T 1Z1

PP18. Analytical Methods for Characterization of Liposomal Dry Powder Formulations Produced by Supercritical CO_2

C. Costa[1,2], B. Nobre[2], A.S. Matos[3], A.S. Silva[4], T. Casimiro[1], M.L. Corvo[2], A. Aguiar-Ricardo[1]
(1) LAQV-REQUIMTE, Department of Chemistry, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516, Caparica, Portugal, cid.costa@campus.fct.unl.pt
(2) Instituto de Investigação do Medicamento (iMed.ULisboa), Faculdade de Farmácia, Universidade de Lisboa, Avenida Professor Gama Pinto, 1649-003, Lisboa, Portugal
(3) Departamento de Engenharia Mecânica e Industrial, UNIDEMI, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516, Caparica, Portugal
(4) Department of Chemistry, CICECO, University of Aveiro, Campus Universitário de Santiago, 3810-193, Aveiro, Portugal

PP19. Determining Hexachlorocyclohexane Contamination in Different Plant Species by UAE-GC-MS/MS for Biomonitoring Purpose

Z. Chaos[1], M. Celeiro[2], A. Méndez[1], C. García-Jares[2], C. Monterroso[1]
(1) CRETUS. Department of Soil science and Agricultural Chemistry. Faculty of Biology, Universidade de Santiago de Compostela, 15782, Santiago de Compostela, Spain, mzoe.chaos@usc.es
(2) CRETUS. Department of Analytical Chemistry, Nutrition and Food Science, Faculty of Chemistry, Universidade de Santiago de Compostela, 15782, Santiago de Compostela, Spain

PP20. Development of an Electrochemical Sensor Based on Porous Molecularly Imprinted Polymer Via Photopolymerization for Detection of Somatostatin in Pharmaceuticals and Serum

E. Ozkan[1,2], M.E. Çorman[3], E. Nemutlu[2], S.A. Ozkan[4], S. Kir[2]
(1) Baskent University, Faculty of Pharmacy, Department of Analytical Chemistry, 06790 Etimesgut, Ankara, Turkey, ecedonmezoglu@gmail.com
(2) Hacettepe University, Faculty of Pharmacy, Department of Analytical Chemistry, 06239 Altındağ, Ankara, Turkey
(3) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Biochemistry, 06018 Kecioren, Ankara, Turkey
(4) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, 06560 Yenimahalle, Ankara, Turkey

PP21. Molecularly Imprinted Sensor for Electrochemical Detection of the Anticancer Drug Enzalutamide

G. Ozcelikay[1], S.I. Kaya[1,2], A. Cetinkaya[1], M.E. Çorman[1,3], M. Karakaya[4], E.B. Atici[5], S.A. Ozkan[1]
(1) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Tandogan, Ankara, Turkey, goksu.ozcelikay91@gmail.com
(2) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey
(3) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Biochemistry, Ankara, Turkey
(4) Sinop University, Faculty of Engineering & Architecture, Department of Energy System, Sinop, Turkey
(5) DEVA Holding A.S. R&D Center, Tekirdag, Turkey

PP22. Fabrication and Evaluation of a Molecularly Imprinted Polymer Electrochemical Sensor for Precise Monitoring of Antirheumatics Drug

A. Cetinkaya[1], S.I. Kaya[1,2], M.E. Çorman[1,3], M. Karakaya[4], E.B. Atici[5], S.A. Ozkan[1]
(1) Ankara University, Faculty of Pharmacy, Department of Analytical Chemistry, Tandogan, Ankara, Turkey, ahmet.cetinkya@yahoo.com
(2) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Analytical Chemistry, Ankara, Turkey
(3) University of Health Sciences, Gulhane Faculty of Pharmacy, Department of Biochemistry, Ankara, Turkey
(4) Sinop University, Faculty of Engineering & Architecture, Department of Energy System, Sinop, Turkey
(5) DEVA Holding A.S. R&D Center, Tekirdag, Turkey