Preliminary Program

September 22-25, 2024 – Messina, Italy

Scientific program

Sunday, September 22

14:30 – 19:00 **Registration**

16:00 – 16:20 **Opening Ceremony (*Room Vittorio Ricevuto*)**
Chairs: Danilo Corradini, Luigi Mondello

16:20 – 17:00 **Presentation Tswett – Nerst Awards (*Room Vittorio Ricevuto*)**

16:20 (A-1) Recent developments in enantioselective liquid-phase separations
Bezhan Chankvetadze
Tbilisi State University, Georgia

16:40 (A-2) Exploring the evolution from one- to five-dimensional separation techniques: A personal journey in advancing chromatography and hyphenated detection
Luigi Mondello
University of Messina, Italy

17:00 – 18:20 **Csaba Horváth Memorial Session (*Room Vittorio Ricevuto*)**

17:00 (MS-1) Separation Sciences - the key in Phytochemistry
Guenther K. Bonn
Austrian Drug Screening Institute GmbH, Austria

17:20 (MS-2) Electrolyte solution-mediated migration behavior of biomolecules in capillary zone electrophoresis
Danilo Corradini
CNR, Institute for Biological Systems, Italy

17:40 (MS-3) Endotoxin quantification by a chemical instrumental analytical (U)HPLC-assay
Franka Kalman
University of Applied Sciences, HES-SO Valais-Wallis, Switzerland

18:00 (MS-4) Csaba Horváth, the father of reversed phase chromatography - The revolution of life science
Imre Molnár
Molnár-Institute for applied chromatography, Germany

18:20 – 19:00 **Session 1 Plenary lectures (*Room Vittorio Ricevuto*)**

18:20 (PL-1) Electrophoretic and spectral techniques in the determination of microbiomes
Bogusław Buszewski[1], Dominika Błońska[2]
[1] Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development Centre, Poland;
[2] Nicolaus Copernicus University, Poland

18:40 (PL-2) Challenges in chromatographic analyses of bioactives in plant extracts and food
Irena Vovk
Slovenia National Institute of Chemistry, Slovenia

19:00 – 20:30 **Get-together party** - *Campus University of Messina*

Monday, September 23

08:00 – 09:00 **Registration**

09:00 – 10:20 **Session 2 Plenary lectures (*Room Vittorio Ricevuto*)**

09:00 (PL-3) The role of HILIC in uni- and two-dimensional separations of pharmaceuticals, supplements and low-molecular metabolites
Petr Česla, Miroslav Kubát, Barbora Tošovská, Michal Kašpar
University of Pardubice, Czech Republic

09:20 (PL-4) Wastewater-based epidemiology to assess pharmaceutical consumption in urban populations
Maria-Virginia Coman, Mihaela-Cătălina Herghelegiu, Mihail Simion Beldean-Galea
Babes-Bolyai University, Romania

09:40 (PL-5) Assessment of purity of avocado oil sold in the US marketplace
Pierluigi Delmonte, Amy Ngo, Christelle Lappin
US Food and Drug Administration, USA

10:00 (PL-6) The composition of pyrolysis products of used car tires used as liquid fuel
Modest Gertsiuk[1], T. Kovalchuk[2], K. Kapral[2]
[1]National Academy of Sciences of Ukraine, Ukraine; [2]Leco Instrumente Plzen, Czech Republic

10:20 – 10:40 **Coffee Break**

10:40 – 12:40 **Session 3 (*Room Vittorio Ricevuto*)** **Session 4 (*Room SBA-T*)**

10:40 (OL-1) Analysis of polycyclic aromatic hydrocarbons in food using cryogenic zone compression gas chromatography-mass spectrometry
Mariosimone Zoccali[1], Alessia Arena[2], Peter Q. Tranchida[1], Luigi Mondello[1,2]
[1]University of Messina, Italy; [2] Chromaleont s.r.l., Italy

(OL-9) Enantioselective liquid chromatography analysis of phytocannabinoids with low- and high-molecular weight chiral selectors
Roccaldo Sardella[1], Ina Varfaj[1], Michele Protti[2], Samuele Bonafè[1], Maria Grazia Fishta[1], Andrea Carotti[1], Laura Mercolini[2]
[1]University of Perugia, Italy; [2] University of Bologna, Italy

10:55 (OL-2) Comprehensive GC×FIMS as a versatile method for the modern oil, gas, & petrochemical laboratory

(OL-10) Method development and environmental assessment for quantitative analysis of oxygen heterocyclic

		compounds using chromatographic techniques
	Hendrik Muller, Radwan Y. Bakor, Tarik M. Hoshan	Marina Russo[1], Giovanna Cafeo[1], Elisa Irrera[1], Antonella Satira[1], Luigi Mondello[1,2], Paola Dugo[1,2]
	Saudi Aramco, Saudi Arabia	*[1]University of Messina, Italy; [2] Chromaleont s.r.l., Italy*
11:10	(OL-3) Developing an analytical method for the near to real-time quantification of microbial volatiles emitted from fungi: a Gas Chromatography-Proton Transfer Reaction Mass Spectrometric investigation of *Trichoderma atroviride*	(OL-11) Isotopologues of amphetamine and methamphetamine: separation, enantioseparation and recognition mechanisms in high-perfomance liquid chromatography
	Rebecca Hofer, Franziska Lochmann, Daniel Flatschacher, Valentina Stock, Arne Schiller, Susanne Zeilinger, Veronika Ruzsanyi	Paola Peluso[1], Giorgi Kobidze[2], Giorgia Sprega[2], Alfredo Fabrizio Lo Faro[2], Francesco Paolo Busardò[2], Bezhan Chankvetadze[3]
	University of Innsbruck, Austria	*[1]National Research Council, Italy; [2]Università Politecnica delle Marche, Italy; [3]Tbilisi State University, Georgia*
11:25	(OL-4) Advanced GC-MS Methods for Detailed Characterization of Polycyclic Aromatic Hydrocarbons in Particular Matter	(OL-12) Improving sustainability through modernisation of LC methods
	Giuseppe Micalizzi[1], Valentina Chiaia[1], Paola Cardiano[1], Gabriele Lando[1], Luigi Mondello[1,2]	David Dunthorne, Matthew James, Gemma Lo
	[1]University of Messina, Italy; [2] Chromaleont s.r.l., Italy	*Avantor, United Kingdom*
11:40	(OL-5) Joint forces of capillary electrophoresis and ICP-MS/MS in monitoring of liposome-active compound systems formation and changes	(OL-13) Exploring the capabilities of a cyanopropyl stationary phase for separating cholesterol oxidation products
	Magdalena Matczuk, Marta Stępień, Karolina Ogórek, Kinga Nowak, Joanna Zajda	Andrea Castellaneta[1], Ilario Losito[1], Claudio Crisau[1], Mariangela Chisari[2], Maria Angela Sortino[2], Cosima Damiana Calvano[1], Tommaso R.I. Cataldi[1]

	Warsaw University of Technology, Poland	*[1]University of of Bari Aldo Moro, Italy; [2] University of Catania., Italy*
11:55	(OL-6) Development of novel fluorescent labels for glycan analysis by CE and LC methods	(OL-14) Exploring the enantiorecognition mechanism of 3,5-dinitrobenzoyl-amino acids using two cinchona alkaloid-derived chiral stationary phases: a journey with molecular dynamic simulations
	Jana Lavicka[1], Denisa Smolkova[1,2], Michal Gregus[2], Richard Cmelik[1], Filip Dusa[1], Pavel Bobal[2]	Ina Varfaj[1], Magdalena Labikova[2], Roccaldo Sardella[1], Hubert Hettegger[3], Wolfgang Lindner[4], Michal Kohout[2], Andrea Carotti[1]
	[1] Czech Academy of Sciences, Czech Republic; [2] Masaryk University Czech Republic	*[1] University of Perugia, Italy; [2] University of Chemistry and Technology, Czech Republic; [3] BOKU University, Austria;[4] University of Vienna, Austria*
12:10	(OL-7) Single-run separation and quantification of 14 cannabinoids using capillary electrophoresis	(OL-15) Green techniques and materials for vegetable oils profiling
	Emil Zaripov, Maxim V. Berezovski	Paola Donato[1], Antonella Satira[1], Alice Mondello[1], Francesca Rigano[1], Emanuela Trovato[1], Ivana Bonaccorsi[1], Luigi Mondello[1,2]
	University of Ottawa, Canada	*[1]University of Messina, Italy; [2] Chromaleont s.r.l., Italy*
12:25	(OL-8) New advances in the enhancement of direct mercury speciation in solid matter using programmable thermal release in combination with elecrothermal atomic absorption spectrometry	(OL-16) Semi-untargeted approach for Lupinus albus L. traceability
	Olga Shuvaeva, Ivan Bekesha, Dmitrii Troitskii	Fabiola Eugelio[1], Sara Palmieri[1], Marcello Mascini[1], Francesco Della Valle[1], Federico Fanti[1], Eleonora Oliva[1], Michele Del Carlo[1], Dario Compagnone[1], Manuel Sergi[2]
	Siberian Branch of Russian Academy of Sciences, Russia	*[1]University of Teramo, Italy; [2]University of Rome, Italy;*
12:40 – 14:00	**Lunch**	

12:40 – 14:00 **Poster Session A (*Room Vittorio Ricevuto*)**

14:00 – 15:20 **Session 5 Plenary lectures (*Room Vittorio Ricevuto*)**

Chairs: Modest Gertsiuk, Perluigi Delmonte

14:00 (PL-7) Characterization of natural biomacromolecules by methods of liquid chromatography
Róbert Góra
Comenius University in Bratislava, Slovakia

14:20 (PL-8) LC × LC to unravel the complex polyphenolic profile of winery-related products
Lidia Montero[1], Mikaela Rajchman[1], Laura Oliveira Lago[2], Pawel Swit[3], Miguel Herrero[1]
[1]Institute of Food Science Research - CIAL, Spain; [2]Federal University of Rio Grande do Sul, Brazil; [3]University of Silesia in Katowice, Poland

14:40 (PL-9) Separations Sciences coupled to Mass Spectrometry how much Analyte Structural Information can we get from a Single Analysis?
Gérard Hopfgartner
University of Geneva, Switzerland

15:00 (PL-10) Application of porous graphitic carbon stationary phases in pharmaceutical analysis
Krisztián Horváth[1], Barnabás Soós[2], Boglárka Páll[2], Róbert Kormány[2]
[1]University of Pannonia, Hungary; [2]Egis Pharmaceuticals PLC, Hungary

15:20 – 15:40 **Coffee Break**

15:40 – 17:32

Session 6 (*Room Vittorio Ricevuto*)

Chair: Irena Vovk, Peter Q. Tranchida

15:40 (FL-1) The application of freeze-dried Lactobacillus plantarum as an innovative approach for cream enrichment in Vitamin D3 and fatty acid profile modification

Tetiana Dyrda-Terniuk[1], Viorica Railean[1], Aleksandra Bogumiła Florkiewicz[1], Justyna Walczak-Skierska[1], Mateusz Kolankowski[1], Joanna Rudnicka[1], Dorota Białczak[2], Paweł Pomastowski[1]

Session 7 (*Room SBA-T*)

Chair: Miguel Herrero, Danilo Sciarrone

(FL-15) Extractive-Liquid sampling Electron Ionization-Mass Spectrometry: direct analyses of pesticides in light cannabis and benzodiazepines as pharmaceuticals or rape drugs
Giovanna Nevola[1], Adriana Arigò[1], Giorgio Famiglini[1], Pierangela Palma[1,2], Achille Cappiello[1,2]

	[1]*Nicolaus Copernicus University, Poland;* [2]*Polmlek Grudziądz Sp. z o. o, Poland*	[1]*University of Urbino, Italy;* [2] *Vancouver Island University, Canada*
15:48	(FL-2) Comprehensive characterization of *Piper* essential oils from Brazil by means of gas chromatography analysis and spectroscopic methods Lorenzo Cucinotta[1], Carmelo Coppolino[1], Elisa Irrera[1], Paola Donato[1], Danilo Sciarrone[1], Luigi Mondello[1,2], Tania Maria Grazia Salerno[1] [1]*University of Messina, Italy;* [2]*Chromaleont s.r.l., Italy*	(FL-16) Honey bacteria as a source of new potential antibacterial therapeutics Dominika Błońska[1], Bogusław Buszewski[2] [1]*Nicolaus Copernicus University, Poland;* [2]*Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development Centre, Poland*
15:56	(FL-3) Tracing volatile signature of grapes by GC×GC-ToFMS Daniela Fonseca, Nuno Martins, Raquel Garcia, Maria João Cabrita *University of Évora, Portugal*	(FL-17) The Role of Silver Nanoparticles in Enhancing Detection of Low-Molecular-Weight Biomolecules in LDI-MS Analysis Ewelina Sibińska[1], Justyna Walczak-Skierska[1], Adrian Arendowski[1], Agnieszka Ludwiczak[1], Aleksandra Radtke[1], Piotr Piszczek[1], Dorota Gabryś[2], Kinga Robotnik[1], Paweł Pomastowski[1] [1]*Nicolaus Copernicus University, Poland;* [2]*Maria Sklodowska-Curie National Research Institute of Oncology, Poland*
16:04	(FL-4) Identification of hydrocarbon isomers by means of a novel dual parallel detection based on a GC-FTIR/MS approach Carmelo Coppolino[1], Tania Maria Grazia Salerno[1], Paola Donato[1], Luigi Mondello[1,2] [1]*University of Messina, Italy;* [2]*Chromaleont s.r.l., Italy*	(FL-18) Capillary electrophoresis analysis of oligosaccharides and glycans using rhodamine B-based labeling Denisa Smolkova[1,2], Filip Dusa[1], Jozef Sestak[1], Richard Cmelik[1], Jana Lavicka[1] [1]*Institute of Analytical Chemistry of the CAS, Czech Republic;* [2]*Masaryk University, Czech Republic*
16:12	(FL-5) Insight into bioactivity and phytochemistry of *Cistus laurifolius* L. originated new type of propolis	(FL-19) Use of new carbon material as stationary phases in superheated water chromatography for the

		determination of preservatives in food and cosmetic products
	Ecesu Sezen[1], Rengin Reis[2], Yağmur Özhan[1], Hande Sipahi[1], Rifat Gimatdin[1], Ahmet Ceyhan Gören[3], Hasan Kırmızıbekmez[1], Etil Guzelmeric[1]	Roberta La Tella[1], Francesca Rigano[1], Paola Donato[1], Patrick Appelblad[2], Michael Ye[3], Paola Dugo[1,4], Luigi Mondello[1,4]
	[1]Yeditepe University, Türkiye; [2]Acibadem Mehmet Ali Aydinlar University, Türkiye	*[1]University of Messina, Italy; [2]Merck Life Science, Norway; [3]MilliporeSigma, USA; [4]Chromaleont s.r.l., Italy*
16:20	(FL-6) LC-LEI-HRMS for characterization of PAHs photo-oxidation phenomena in Mars environment	(FL-20) UHPLC-QToF MS analysis of phenolic compounds in okara
	Tommaso Grazioso[1], Genny Grasselli[1], Adriana Arigò[1], Giorgio Famiglini[1], Pierangela Palma[1,2], John Robert Brucato[3], Teresa Fornaro[3], Achille Cappiello[1,2]	Milica M. Pešić, Danijel D. Milinčić, Aleksandar Ž. Kostić, Mirjana B. Pešić, Slađana P. Stanojević
	[1]University of Urbino Carlo Bo, Italy; [2]University of Vancouver Island, Canada; [3]University of Florence, Italy	*University of Belgrade, Serbia*
16:28	(FL-7) Characterization and tracing of Cannabis sativa L. essential oils through a comprehensive quali-quantitative, chiral and isotopic investigation	(FL-21) Liquid chromatography as a front-end sample preparation online coupled to gas chromatography-mass spectrometry for polycyclic aromatic hydrocarbons analysis in extra virgin olive oil
	Francesca Cannizzaro[1], Lorenzo Cucinotta[1], Danilo Sciarrone[1], Giuseppe Micalizzi[1], Valentina Chiaia[1], Filippo Alibrando[2], Gabriele Branca[3], Pietro Maida[3], Luigi Mondello[1, 2]	Alessia Arena[1], Mariosimone Zoccali[2], Peter Q. Tranchida[2], Luigi Mondello[1,2]
	[1]University of Messina, Italy; [2]Chromaleont s.r.l., Italy	*[1]Chromaleont s.r.l., Italy; [2]University of Messina, Italy*
16:36	(FL-8) Towards a database of softwood odors: approaches for the investigation of odor profiles from *Pinus sylvestris L., Pinus strobus L. and Pinus cembra L.* by (dynamic)	(FL-22) Determination of sea-food emissions by HS-SPME-GC-MS. Mussel odor volatiles as indicators of quality and environmental pollution

	headspace extraction thermal desorption-GC-O, GC-FID/MS and human sensory evaluation Valentin Schierer[1,2], Cornelia Rieder-Gradinger[2], Erwin Rosenberg[2] *[1]Wood K Plus, Austria; [2]TU Wien, Austria*	Fabrizio Cincotta[1], Ivana Lidia Bonaccorsi[1], Carmen Rizzo[2], Teresa Romeo[2], Antonella Verzera[1] *[1]University of Messina, Italy; [2]Sicily Marine Centre, Italy*
16:44	(FL-9) Qualitative determination of phenolic compounds in citrus fruit molasses by ultra-high-performance liquid chromatography coupled high-resolution mass spectrometry (UHPLC-HRMS) Desiree Bozza[1], Davide Barboni[1], Natasha Damiana Spadafora[1], Simona Felletti[2], Chiara De Luca[1], Paola Tedeschi[1], Luisa Pasti[2], Alberto Cavazzini[1,2], Martina Catani[1] *[1]University of Ferrara, Italy; [2]Council for Agricultural Research and Economics, Italy*	(FL-23) Use of flow-modulation comprehensive two-dimensional enantio-gas chromatography as valid and flexible alternative to heart-cutting multidimensional enantio-gas chromatography Micaela Galletta[1], Mariosimone Zoccali[1], Peter Q. Tranchida[1], Luigi Mondello[1,2] *[1]University of Messina, Italy; [2]Chromaleont s.r.l., Italy*
16:52	(FL-10) Determination of shell-fish emissions by HS-SPME-GC-MS. Mediterranean Blue crab odor volatiles for its characterization Maria Merlino[1], Marco Torre[2], Francesco Tiralongo[3], Martina Buda[1], Anthea Miller[1], Concetta Condurso[1] *[1]University of Messina, Italy; [2]University of Turin, Italy; [3]University of Catania, Italy*	(FL-24) Application of MBT-STAR-BL and MBT-ASTA tests for antibiotic resistance analysis based on MALDI-TOF MS technique Daria Janiszewska[1], Michał Złoch[1], Paweł Pomastowski[1], Marzena Kociołek[2], Małgorzata Szultka-Młyńska[1] *[1]Nicolaus Copernicus University, Poland; [2]Hospital of Lung Diseases, Poland*
17:00	(FL-11) Use of DES-microwave-assisted extraction with SPE clean-up to characterize oxygen heterocyclic compounds in Citrus-scented cosmetics by means of HPLC-PDA Giovanna Cafeo[1], Giorgia Purcaro[2], Marina Russo[1],	(FL-25) Microwave-assisted extraction and characterization by GC×GC-MS of solvolysis products of wind turbine blade materials Giulia Giacoppo[1,3], Charlotte Mase[2,3], Marco Piparo[2,3], Pierre Giusti[2,3], Caroline Mangote[2,3],

Marco Beccaria[2,3], Luigi Mondello[1,4], Paola Dugo[1,4]

[1]University of Messina, Italy; [2]University of Liège, Belgium; [3]University of Ferrara, Italy; Chromaleont s.r.l., Italy

Luisa Pasti[1], Alberto Cavazzini[1], Flavio Antonio Franchina[1,3], Marco Beccaria[1,3]

[1]University of Ferrara, Italy; [2]TotalEnergies, France; [3]TRTG, France

17:08 (FL-12) Characterization and analytical application of lab-made organosilica coatings for sample preparation prior to chromatography determination

Anastasiia Mosendz, Valentyna Levchyk, Maryna Zui

Taras Shevchenko National University of Kyiv, Ukraine

(FL-26) Bioactive content identification through liquid chromatography high resolution mass spectrometry and in vitro enzyme inhibitory effect of 19 chili pepper varieties

Cinzia Cafarella[1], Aristeidis S. Tsagkaris[2], Francesca Rigano[1], Anna Louckova[2], Katia Arena[1], Paola Dugo[1,3], Jana Hajslova[2], Luigi Mondello[1,3]

[1]University of Messina, Italy; [2]University of Chemistry and Technology Prague, Czech Republic; [3]Chromaleont s.r.l., Italy

17:16 (FL-13) Applicability of MTBE lipid extraction assisted by microwave in food analysis. Case of study: extraction of pistachio oil

Carlo Bellinghieri[1], Giulia Giacoppo[1], Andrea Schincaglia[1,2], Giorgia Purcaro[2], Sebastiano Pantò[3], Alberto Cavazzini[2], Luisa Pasti[1], Flavio Antonio Franchina[1], Marco Beccaria[1]

[1]University of Ferrara, Italy; [2]University of Liège, Italy; [3]LECO European Application and Technology Center, Germany

(FL-27) Green separation and isolation of aroma-active components from mixture of natural aliphatic and aromatic esters by reversed phase liquid chromatography

Veronika Výbohová[1,2], Katarína Hroboňová[1]

[1]Slovak University of Technology, Slovakia; [2]Axxence Slovakia s.r.o., Slovakia

17:24 (FL-14) Miniaturised extraction procedure coupled with a rapid and eco-friendly chromatographic approach for the identification of oxygen heterocyclic compounds in foodstuffs

Elisa Irrera[1], Giovanna Cafeo[1], Marina Russo[1], Luigi Mondello[1,2], Paola Dugo[1,2]

(FL-28) QSSR approach for identification of Phenolic compounds and evaluation of their retention behaviour under Reverse-Phase Liquid Chromatography

Roberto Laganà Vinci[1], Katia Arena[1], Francesca Rigano[1], Francesco Cacciola[1], Paola Dugo[1,2], Luigi Mondello[1,2]

		[1]*University of Messina, Italy;* [2]*Chromaleont s.r.l., Italy*	[1]*University of Messina, Italy;* [2]*Chromaleont s.r.l., Italy*
17:32			(FL-29) Analytical evaluation of phenols in olive oil by-products Wadir M.V. Marchesiello[1], Micaela Galletta[1], Marina Russo[1], Francesco Cacciola[1], Paola Dugo[1,2], Luigi Mondello[1,2] [1]*University of Messina, Italy;* [2]*Chromaleont s.r.l., Italy*
17:40	**CEGSS Meeting**		
19:30-23:30	**Gala dinner**		

Tuesday, September 24

09:00 – 10:20 **Session 8 Plenary lectures (*Room Vittorio Ricevuto*)**

09:00 (PL-11) Investigation of enantioselective noncovalent molecular interactions by affinity capillary electrophoresis
Václav Kašička, Jan Bílek, Dušan Koval, Veronika Šolínová, Petra Sázelová
Czech Academy of Sciences, Czech Republic

09:20 (PL-12) Isomer-Selective LC in Lipidomics and Metabolomics
Michael Laemmerhofer, Kristian Serafimov, Adrian Brun, Simon Jaag, Xiaoqing Fu, Kristina Dittrich, Matthias Olfert, Cornelius Knappe
University of Tuebingen, Germany

09:40 (PL-13) Chemometrics: a constructive tool for separation sciences
Paolo Oliveri
University of Genova, Italy

10:00 (PL-14) Navigating the path to sustainable analytical chemistry
Elia Psillakis
Technical University of Crete, Greece

10:20 – 10:40 **Coffee Break**

10:40 – 12:40 **Session 9 (*Room Vittorio Ricevuto*)** **Session 10 (*Room SBA-T*)**

10:40 (OL-17) Goat milk powder enriched with grape pomace seed extract: Mixture optimisation and UHPLC-Q-ToF-MS characterization
Mirjana B. Pešić, Ivana Sredović-Ignjatović, Aleksandar Ž. Kostić, Slađana P. Stanojević, Danijel D. Milinčić
University of Belgrade, Serbia

(OL-25) The effectiveness of liquid phase microextraction of beta-blockers from aqueous matrices for their analysis by chromatographic techniques
Mihaela-Cătălina Herghelegiu, Vlad Alexandru Pănescu, Maria-Virginia Coman, Mihail Simion Beldean-Galea
Babeș-Bolyai University, Romania

10:55 (OL-18) Integrated LC-MS analysis of Maillard-modified lipids in edible insects
Giovanni Ventura, Michele Pellegrino, Cosima D. Calvano, Tommaso R.I. Cataldi

(OL-26) Modifications of polymer nanofibers: advanced extraction materials for sample preparation
Ivona Lhotská[1], Aneta Kholová[1], Martina Háková[1], Jakub Erben[2], Jiří Chvojka[2], Erwin Rosenberg[3], František Švec[1], Dalibor Šatínský[1]

	University of Bari Aldo Moro, Italy	*[1]Charles University, Czech Republic; [2]Technical University of Liberec, Czech Republic; [3]Vienna University of Technology, Austria*
11:10	(OL-19) Quantitation of WADA-prohibited and monitored stimulants in dietary supplements using LC-MS/MS and LC-DAD Margita Szilágyi-Utczás, Zoltán Pálinkás *Hungarian University of Sports Science, Hungary*	(OL-27) Simplified Analytical Workflow for Contaminants Analysis in Olive Oil Using Low-Pressure Gas Chromatography Antonio Ferracane[1], Danilo Donnarumma[1], Peter Q. Tranchida[1], Mariosimone Zoccali[1], Alessia Arena[2], Luigi Mondello[1,2] *[1]University of Messina, Italy; [2]Chromaleont s.r.l., Italy*
11:25	(OL-20) Oxysterol profile in Zebrafish by UPLC-APCI-MS/MS: a potential marker for development stage Francesco Della Valle[1], Fabiola Eugelio[1], Federico Fanti[1], Carmine Merola[1], Giulia Caioni[1], Marcello Mascini[1], Michele Amorena[1], Michele Del Carlo[1], Manuel Sergi[2], Dario Compagnone[1] *[1]University of Teramo, Italy; [2]Sapienza University of Roma, Italy*	(OL-28) Bugs for buffet: optimization of a QuEChERS-GC/MS protocol to assess the organic micropollutant contamination in edible insects Luca Rivoira, Maria Concetta Bruzzoniti *Università degli Studi di Torino,, Italy*
11:40	(OL-21) Quality Assurance of Plant-Based Products through Analytical Chemistry and Biological Test Systems - Applications in Phytocosmetics, Phytopharmacy and Phytonutrition Thomas A. E. Jakschitz, Guenther K. Bonn *University of Innsbruck, Austria*	(OL-29) Electromembrane Extraction of Basic Drugs from Human Urine On-line Coupled with Capillary Electrophoresis Petr Tůma, František Opekar *Charles University, Czech Republic*
11:55	(OL-22) Harnessing the Potential of 1.0 mm ID columns in UHPLC-HRMS based Untargeted Metabolomics Danila La Gioia, Eduardo Sommella, Pietro Campiglia	(OL-30) How proteomics analysis can be advanced for studying biological, food and cultural heritage samples Mariachiara Bianco, Elena C.L. Rigante, Ludovica S. Guadalupi,

		Cosima D. Calvano, Ilario Losito, Tommaso Cataldi
	University of Salerno, Italy	*University of of Bari Aldo Moro, Italy*
12:10	(OL-23) A stationary phase with a positively charged surface allows using a mobile phase with reduced formic acid concentration, enhancing electrospray ionization in LC-MS proteomic experiments	(OL-31) Plant labelling with $^{13}CO_2$ to demonstrate root exudates trapping with non-common sampling
	Siddharth Jadeja, Hana Sklenarova, Juraj Lenco	Victoria Bohm, Pascal Cardinael, Matthieu Chauvat, Estelle Forey, Valérie Agasse
	Charles University, Czech Republic	*Univ Rouen Normandie, France*
12:25	(OL-24) Non-invasive CYP3A4 breath test for predicting individual drug responses	(OL-32) Fast Screening Method for Food and Natural products analyses by Solid-Phase-Microextraction–Transmission Mode (SPME-TM) and Direct Analysis in Real Time Mass Spectrometry (DART-MS)
	Valentina Stock[1], Rebecca Hofer[1], Franziska Lochmann[1], Vera Spanke[1], Klaus Liedl[1], Jakob Troppmair[1], Thierry Langer[2], Hubert Gstach[2], Chris A. Mayhew[1], Sarah Kammerer[3], Veronika Ruzsanyi[1]	Domenica Mangraviti[1], Francesca Rigano[1], Cinzia Cafarella[1], Katia Arena[1], Paola Dugo[1,2], Luigi Mondello[1,2]
	[1]University of Innsbruck, Austria; [2]University of Vienna, Austria; [3]Brandenburg University of Technology Cottbus-Senftenberg, Germany	*[1]University of Messina, Italy; [2]Chromaleont s.r.l., Italy*

12:40 – 14:00 **Lunch**

12:40 – 14:00 **Poster Session B (*Room Vittorio Ricevuto*)**

14:00 – 15:20 **Session 11 Plenary lectures (*Room Vittorio Ricevuto*)**
Chairs: Alexios-Leandros Skaltsounis, Václav Kašička

14:00 (PL-15) LC-GC×GC For MOSH And MOAH Analysis: Unlock New Potential And Enhance The Level Of Understanding
Giorgia Purcaro, Aleksandra Gorska, Grégory Bauwens
University of Liège, Belgium

14:20 (PL-16) Fast, but not Furious: Stepping on the Gas Pedal in Gas Chromatography

Erwin Rosenberg, Bernhard Klampfl, Sebastian Wöhrer, Robert D. Müller, Jürgen Kahr
Vienna University of Technology, Austria

14:40 (PL-17) Phytochemical analysis of Olea europaea: a compelling source of health promoting biomolecules
Alexios-Leandros Skaltsounis
National and Kapodistrian University of Athens, Greece

15:00 (PL-18) UHPLC-MS/MS Investigation of the effect of leaf position on the tree on photosynthesis of polyphenolic compounds
Živoslav Tešić[1], Milica Fotirić Akšić[1], Mekjel Meland[2], Nikola Horvacki[1], Biljana Lončar[3], Uroš Gašić[1], Lato Pezo7, Milica Kalaba[4]
[1]University of Belgrade, Serbia; [2]Ullensvang, Norwegian Institute of Bioeconomy Research, Norway; [3]University of Novi Sad, Serbia; [4]Institute of General and Physical Chemistry, Serbia

10:20 – 10:40 Coffee Break

15:40 – 17:25	**Session 12 (*Room Vittorio Ricevuto*)**	**Session 13 (*Room SBA-T*)**
	Chair: Imre Molnár	**Chair: Giorgia Purcaro**
15:40	(OL-33) Multidimensional preparative gas chromatography as a sustainable analytical approach for the isolation of target analytes prior to biological assays Danilo Sciarrone[1], Lorenzo Cucinotta[1], Francesca Cannizzaro[1], Luigi Mondello[1,2] *[1]University of Messina, Italy; [2]Chromaleont s.r.l., Italy*	(OL-40) Greening the downstream of biopharmaceuticals through process intensification and the use of innovative eco-compatible solvents Martina Catani[1], Desiree Bozza[1], Chiara De Luca[1], Simona Felletti[1], Matteo Spedicato[1], Marco Macis[2], Antonio Ricci[2], Alberto Cavazzini[1,3] *[1]University of Ferrara, Italy; [2]Fresenius Kabi iPSUM, Italy; [3]Council for Agricultural Research and Economics, Italy*
15:55	(OL-34) Developing Fuel Property Prediction Models using Comprehensive Two-Dimensional Gas Chromatography Noemae Lim[1], Markus Latschka[2], Georg Lenk[2], Markus Maly[2], Erwin Rosenberg[1] *[1]TU Wien, Austria; [2]OMV Downstream GmbH, Austria*	(OL-41) Liquid-liquid chromatography as a separation method of natural products Łukasz Kulinowski, Krystyna Skalicka-Woźniak *Medical University of Lublin, Poland*

16:10 (OL-35) Selective isolation of chemicals by a customized GC×GC setup

Matyas. Ripszam, Tobias Bruderer, Federico M. Vivaldi, S. Reale, Fabio. Di Francesco

Università di Pisa, Italy

(OL-42) Preparation of Monolith for Online Extraction and LC–MS Analysis of β-Estradiol in Serum Via a Simple Multicomponent Reaction

Carmela Maria Montone[1], Sara Elsa Aita[1], Andrea Cerrato[1], Chiara Cavaliere[1], Aldo Laganà[1,2], Susy Piovesana[1], Enrico Taglioni[1], Anna Laura Capriotti[1]

[1]University of Rome "La Sapienza", Italy; [2]Istituto Nazionale Biostrutture e Biosistemi, Italy

16:25 (OL-36) Development of HILIC×RP-LC platforms for quali-quantitative screening of bioactive compounds in food and natural products

Katia Arena[1], Roberto Laganà Vinci[1], Francesco Cacciola[1], Paola Dugo[1,2], Luigi Mondello[1,2]

[1]University of Messina, Italy; [2] Chromaleont s.r.l., Italy

(OL-43) Microwave-Assisted Extraction: A Sustainable Approach to Fatty Acid Production from Wheat Bran

Giulia De Soricellis, Gloria Brusotti, Lucrezia Macellaro, Enrica Calleri

University of Pavia, Italy

16:40 (OL-37) Application of a Doehlert design in flow-modulated comprehensive two-dimensional gas chromatography

Olga Vyviurska, Dominika Sklenárová, Ivan Špánik

Slovak University of Technology in Bratislava, Slovakia

(OL-44) A miniaturized method for the simultaneous analysis of vitamin D metabolites and total lipidome in human serum

Danilo Donnarumma[1], Alessia Arena[2], Emanuela Trovato[1], Francesca Rigano[1], Mariosimone Zoccali[1], Luigi Mondello[1,2]

[1]University of Messina, Italy; [2]Chromaleont s.r.l., Italy

16:55 (OL-38) Comprehensive two-dimensional gas chromatography–mass spectrometry combined with advanced chemometrics as a powerful tool in the exploration of food authenticity

Natasa P. Kalogiouri[1], Natalia Manousi[1,2], Antonio Ferracane[3], Peter Q.

(OL-45) A click inverse electron demand Diels-Alder reaction for assigning the regiochemistry of carbon-carbon double bonds in untargeted lipidomics

Andrea Cerrato[1,2], Aldo Laganà[1,2], Enrico Taglioni[1,2], Anna Laura Capriotti[1,2]

	Tranchida[3], Luigi Mondello[3,4], Victoria F. Samanidou[1], Erwin Rosenberg[2] *[1]Aristotle University of Thessaloniki, Greece; [2]Vienna University of Technology, Austria; [3]University of Messina, Italy; [4]Chromaleont s.r.l., Italy*	*[1]University of Rome "La Sapienza", Italy; [2]Istituto Nazionale Biostrutture e Biosistemi, Italy*
17:10	(OL-39) Exploring the flavour profiles of gin using high-capacity sorptive extraction and GC×GC–TOF MS Daniela Peroni[1], Meriem Gaida[2], Laura McGregor[2] *[1]SRA Instruments Spa, Italy; [2]SepSolve Analytical, United Kingdom*	(OL-46) Two birds with one stone: FFF-Multidetection as isolation and quality control platform for extracellular vesicles Anna Placci[1], S. Giordani[1], G. Narimanfar[1], B. Roda[1,2], A. Zattoni[1,2], P. Reschiglian[1,2], L. Catani[1,3], V. Marassi[1,2] *[1]University of Bologna, Italy; [2]byFlow srl, Italy; [3]IRCCS Azienda Ospedaliero-Universitaria di Bologna-UOC Ematologia, Italy*
17:40 – 18:40	**Contest and Award Ceremony**	

Wednesday, September 25

09:00 – 9:40 **Session 14 Plenary lectures (*Room Vittorio Ricevuto*)**

09:00 (PL-19) On the Performance of a New Generation Micro-Pillar Array Columns
Gert Desmet
Vrije Universiteit, Belgium

09:20 (PL-20) Going with the Flow: Strategies for Automating Sample Treatment
Marcela Alves Segundo
University of Porto, Portugal

09:40 – 10:25 **Session 15 (*Room Vittorio Ricevuto*)**
Chairs: Elia Psillakis, Michael Laemmerhofer

09:40 (OL-47) Relative response factors in gas chromatography: a comparison between multiple detectors
Flavio A. Franchina
University of Ferrara, Italy

09:55 (OL-48) Novel Strategy Based on Liquid Electron Ionization (LEI) Interface for Targeted and Untargeted Analysis in a Forensic Application
Genny Grasselli[1], Adriana Arigò[1], Giorgio Famiglini[1], Pierangela Palma[1], Zdena Skrob[2], Tomas Cajthaml[2], Achille Cappiello[1]
[1]University of Urbino Carlo Bo, Italy; [2]Charles University, Czech Republic

10:10 (OL-49) Enhancing Non-Targeted Analysis using comprehensive-two-dimensional gas chromatography coupled to a high-resolution mass spectrometry
Sebastiano Pantò[1], Dmitrii Rakov[1], Aous Khalefa[1], Nick Jones[2]
[1]LECO European Application & Technology Centre, Germany; [2]LECO Corporation, USA

10:25 – 10:40 **Coffee Break**

10:40 – 12:55 **Session 16 (*Room Vittorio Ricevuto*)**
Chair: Marcela Alves Segundo

10:40 (OL-50) Potential of nano-liquid chromatography for the analysis of biomolecules and contaminants
Zeineb Aturki[1], Giovanni Sciarretta[1,2], Enrica Donati[1], Giovanni D'Orazio[1]
[1]National Council of Research, Italy; [2]Sapienza University of Rome, Italy

10:55 (OL-51) SEC-RPLC-MS screening of natural extracts and identification of ligands with high affinity towards PPARα and PPARγ receptors

Francesca Rinaldi, Giulia De Soricellis, Sofia Salerno, Enrica Calleri
University of Pavia, Italy

11:10 (OL-52) Sustainable approach in Analytical Chemistry for the separation of phenolic acids in coffee by nano liquid chromatography
Giovanni D'Orazio[1], Katia Bua[1,2], Chiara Fanali[3], Chiara Dal Bosco[2], Alessandra Gentili[2]
[1]National Council of Research, Italy; [2]Sapienza University of Rome, Italy; [3]Campus Bio-Medico University of Rome, Italy

11:25 (OL-53) GC-MEMS: Development of an ultra-miniaturised gas chromatograph prototype based on lab-on-chip Micro Electro Mechanical Systems (MEMS) for space exploration
Malak Rizk-Bigourd[1], Cyril Szopa[1], David Coscia[1], Jean-Pierre Pineau[1], Vincent Guerrini[1], Frederic Ferreira[1], Fabrice Bertrand[1], Audrey Boco[1], Gabin Bergerot[2], Arnaud Philippart[2], Guillaume Rioland[3], Arnaud Buch[4], Valérie Peulon-Agasse[2], Pascal Cardinael[2]
[1]Sorbonne Université, France; [2]Uni Roen, France; [3]Centre National d'Etudes Spatiales, France; [4]Université Paris-Saclay, France

11:40 (OL-54) DES-based microextraction of Maillard reaction products in plant-based meat substitutes
Dominika Osiecka, Christina Vakh, Patrycja Makoś-Chełstowska, Paweł Kubica
Gdańsk University of Technology, Poland

11:55 (OL-55) Chemical affinity and binding ability between Prokupac seed phenolic compounds and salivary proteins monitored by UHPLC Q-ToF MS analysis
Danijel D. Milinčić[1], Katarina Delić[1,2,3], Pierre-Louis Teissedre[2,3], Mirjana B. Pešić[1]
[1]University of Belgrade, Serbia; [2]Université de Bordeaux, France ; [3]USC 1366 INRAE, France

12:10 (OL-56) Greening Liquid Chromatography: Sustainable Solutions for Enhanced Analytical Performance
Egidijus Machtejevas, Petra Lewits, Frank Michel, Anita Piper, Benjamin Peters
Merck Life Science KGaA, Germany

12:25 (OL-57) Analyses of Airborne Particulate Matter in Recycling Centers using Advanced Mass Spectrometry
Joseph Michael Levermore[1,2], Nick Jones[3], David Green[1,2], Delphine Bard[5], Yukari Ishikawa[1,2], Professor Frank Kelly[1,2], Stephanie Wright[1,2]
[1]Imperial College London, UK; [2]LECO Corporation, USA; [3]UK Health and Safety Executive, UK

12:40 (OL-58) Determination of parabens in cosmetic products by portable capillary liquid chromatography on porous graphitic carbon stationary phases

	Francesca Rigano[1], Roberta La Tella[1], Michael Ye[2], Patrik Appelblad[3], Paola Donato[1], Paola Dugo[1,4], Luigi Mondello[1,4] *[1]University of Messina, Italy; [2]MilliporeSigma, USA; [3]Merck Life Science, Norway; [4]Chromaleont s.r.l., Italy*
12:55– 13:00	**Closing Ceremony - Presentation 29th International Symposium on Separation Sciences – Belgrade, Serbia**