



28th International Symposium on Separation Sciences

SCIENTIFIC PROGRAM

September 22-25, 2024 – Messina, Italy

Patronage:



**Consiglio Nazionale
delle Ricerche**

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University of Messina,
Messina, Italy



European Chemical Society
Division of Analytical Chemistry



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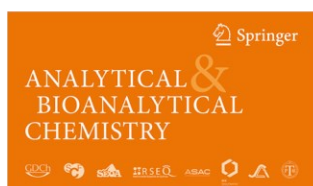
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Welcome

On behalf of the Organising Committee, we welcome you at the 28th International Symposium on Separation Sciences (ISSS 2024), at the Campus University of Messina.

This symposium series started in 1990 in Bled (Slovenia) as the continuation of a series of local seminars and conferences held in Zagreb since 1967. The first six editions were alternatively organized in Slovenia and Croatia and the subsequent editions were held as annual international meetings in Central European Countries, under the auspicious of the Central European Group for Separation Sciences (CEGSS). The symposium traditionally offers an opportunity to scientist and practitioners of high-performance separation techniques, such as GC, HPLC and capillary electromigration techniques, to present and discuss the latest progresses related to all aspects of these separation techniques, their hyphenation to other separation methods or spectroscopic techniques, and their applications in scientific and industrial areas. ISSS 2024 is focused on fundamental and practical aspects of separation and detection methods as well as hyphenated, multidimensional and miniaturised separation techniques applied for analytical, preparative and industrial purposes, including new horizons and challenges in separation sciences.

The main discussion topics are the following: Gas Chromatography, Liquid Chromatography, Thin-layer Chromatography, Ion Chromatography, Supercritical Fluid Chromatography, Capillary Electrophoresis, Electromigration Techniques, Hyphenated Techniques, Multidimensional Separations, Miniaturised Separation Techniques, Sample Preparation Techniques, Environmental Analysis, Food Analysis, Pharmaceutical Analysis, Clinical Analysis, Forensic Analysis, Natural Product Analysis, Industrial Analysis, Chemometrics.

On behalf of the Organizing Committee of ISSS 2024, we would like to wish all participants valuable inspiration during the lecture and poster sessions stimulating scientific discussions, and a nice stay in the friendly city of Messina.

Organizing Committee of 28th ISSS



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Series of ISSS conferences

Edition	Year	Place (Country)	Chairperson
1 st	1990	Bled (SLO)	Jože Marsel
2 nd	1992	Opatia (CRO)	Srečko Turina
3 rd	1994	Bled (SLO)	Jože Marsel
4 th	1996	Opatia (CRO)	Nikola Šegudovič
5 th	1998	Bled (SLO)	Jože Marsel
6 th	2000	Plivice (CRO)	Nikola Šegudovič
7 th	2001	Pörtlach (A)	Wolfgang Buchberger
8 th	2002	Toruń (PL)	Bogusław Buszewski*
9 th	2003	Siofok (H)	Szabolcs Nyiredy
10 th	2004	Opatia (CRO)	Nikola Šegudovič
11 th	2005	Pardubice (CZ)	Pavel Jandera
12 th	2006	Lipica (SLO)	Lucija Zupančič-Kralj
13 th	2007	Štrbske Pleso (SK)	Jozef Lehotay
14 th	2008	Primosten (CRO)	Nikola Segudovic
15 th	2009	Siófok (HU)	Imre Klebovich
16 th	2010	Rome (IT)	Danilo Corradini*, Corrado Sarzanini
17 th	2011	Cluj-Napoca (RO)	Virginia Coman*
18 th	2012	Toruń (PL)	Bogusław Buszewski*
19 th	2013	Poreč (CRO)	Tomislav Bolanča*
20 th	2014	Prague (CZ)	Aleš Horna, Pavel Jandera
21 st	2015	Ljubljana (SLO)	Irena Vovk*
22 nd	2016	Toruń (PL)	Bogusław Buszewski*, Renata Gadzała-Kopciuch
23 rd	2017	Vienna (A)	Erwin Rosenberg*
24 th	2018	Jasná (SK)	Milan Hutta, Dušan Berek
25 th	2019	Łódź (PL)	Joanna Kałużna-Czaplińska, Rafał Głowacki
26 th	2022	Ljubljana (SLO) (#)	Irena Vovk*
27 th	2023	Cluj-Napoca (RO)	Virginia Coman*, Simon Beldean-Galea
28 th	2024	Messina (IT)	Luigi Mondello, Danilo Corradini*
29 th	2025	Belgrade (RS)	Živoslav Tešić*

* Permanent members of CEGSS

(#) Programmed in 2020 and postponed to 2022 due to the COVID-19 pandemic

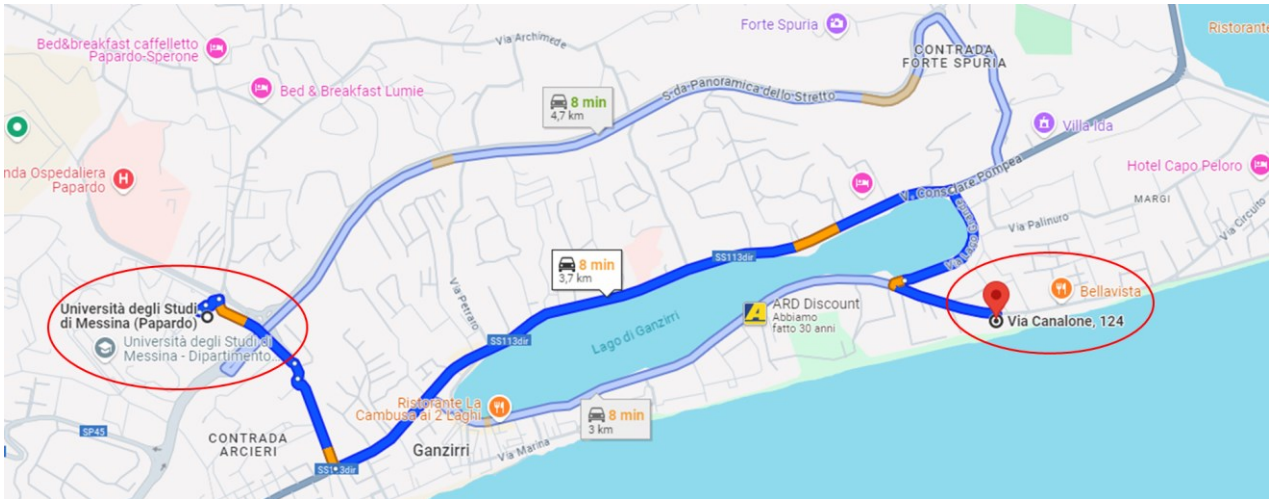


28th International Symposium on Separation Sciences

GENERAL INFORMATION

Symposium venue

The venue of the 28th International Symposium on Separation Sciences will be the “Papardo” Campus University of Messina, Viale Ferdinando Stagno d'Alcontres 31, Messina.



Campus University of Messina – Symposium venue

Grecale restaurant – Gala dinner (Via Canalone, 124, Torre Faro, Messina)

Room “Vittorio Ricevuto”: Session A, Poster Sessions, coffee breaks and lunches.

Room “SBA-T-2A”: Session B (Parallel Session), one minute walking distance from the Room “Vittorio Ricevuto”.

Room “Vittorio Ricevuto”

Room “SBA-T-2A”



Chairpersons

Luigi Mondello University of Messina, Chemical, Biological, Pharmaceutical and
Environmental Sciences Department, Messina, Italy
Danilo Corradini CNR, Institute for Biological Systems, Montelibretti, Rome, Italy

International Scientific Committee

Tomislav Bolanča*, Croatia
Bogusław Buszewski*, Poland
Günther K. Bonn, Austria
Petr Česla*, Czech Republic
Bezhan Chankvetadze, Georgia
Virginia Coman*, Romania
Danilo Corradini* (Chair), Italy
Modest Gertsyuk*, Ukraine
Róbert Góra*, Slovakia
Krisztián Horváth*, Hungary
Imre Klebovich, Hungary
Imre Molnár, Germany
Luigi Mondello (Chair), Italy
Paolo Oliveri, Italy
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Alexios-Leandros Skaltsounis, Greece
Živoslav Tesič*, Serbia
Irena Vovk*, Slovenia
Mariosimone Zoccali, Italy

*permanent member of CEGSS

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Katia Arena
Ivana Bonaccorsi
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Paola Donato
Danilo Donnarumma
Paola Dugo
Domenica Mangraviti
Giuseppe Micalizzi
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Tania Maria Grazia Salerno
Antonella Satira
Danilo Sciarrone
Peter Tranchida
Alessia Tropea
Emanuela Trovato
Mariosimone Zoccali

Conference Secretariat

Margherita Barilà
Elisa Giglio
isss2024@sepscisoc.com

Registration

Conference materials and badges can be obtained at the registration desk which will be open in the Campus University of Messina (ground floor) as follows:

Sunday	22 nd September	14:00 - 19:00
Monday	23 rd September	8:00 - 18:00
Tuesday	24 th September	8:00 - 18:00
Wednesday	25 th September	8:00 - 13:00

Assistance and conference secretariat

If you need any help during the conference, you can find the staff at the registration desk. They will help you in all practical aspects of conference participation.

Name badges

Participants and accompanying persons are obliged to wear the conference badges during all the conference events.

Opening ceremony

The opening ceremony will take place in the Campus University of Messina (Room Vittorio Ricevuto) on Sunday, 22nd September 2024 at 16.00.

Speaker instructions

PowerPoint or PDF presentations are accepted on USB sticks. The presentation must be copied to the laptop before the session. It is crucial that speakers are on time and that they keep their presentation within the allotted time scheduled. Plenary lectures have a duration of 20 minutes. The time for Oral presentations is 15 minutes, including discussion (12+3), while the time for Flash oral presentations is 8 minutes, including discussion (6+2). An audiovisual technician will be available for assistance in the conference hall.

Poster sessions

Poster sessions will take place in the poster exhibition area at the foyer Room Ricevuto. The posters should be placed on the assigned session day in the morning and removed at the end of the day. For your poster presentation we will provide board and pins. Poster dimensions: A0, 841 mm (width) × 1189 mm (height). Orientation: portrait

Poster Session A	Monday, 23 rd September	12:40 - 14:00
Poster Session B	Tuesday, 24 th September	12:40 - 14:00

Language

The conference language is English.

Lunches and refreshments

Lunches are included in registration fee and will be served at the Campus University of Messina as follows:

Monday	23 rd September	12:40 - 14:00
Tuesday	24 th September	12:40 - 14:00

Social events

Get-together party

Date	Sunday, 22 nd September
Time	19:10 - 21:30
Place	Campus University of Messina, Viale Ferdinando Stagno d'Alcontres 31, Messina

Symposium dinner

Date	Monday, 23 rd September
Time	19:30 - 22:30
Place	<i>Grecale restaurant</i> (Via Canalone 124, Torre Faro, Messina)

Insurance and liability

The organizers do not take any responsibility for injury or damage involving persons or property during the conference. Participants are advised to make their own arrangements with respect to health, travel and property insurance before they depart from their country.

Conference website

www.sepscisoc.com/iss2024

Exhibitors

The exhibition site will be in the in the main exhibition hall close to the foyer Room Ricevuto.

Emergency phone numbers

113 – Police
112 – Carabinieri
115 – Fire Department
118 – Emergency

Tswett-Nernst Award

In 2009, at the request of Bogusław Buszewski, Hartmut Frank, and Imre Molnár, the EuSSS established the European Prize Tswett–Nernst, in memory of the two recognized scientists, Mikhail Semenovich Tswett, Russian–Italian biologist, inventor of column chromatography in the year 1903, and Walther Nernst, German physicist and chemist, laureate of the 1920 Nobel Prize in Chemistry.

In this way, it was intended to appreciate, at the European level, all those who have made an indisputable contribution to the development of separation techniques and to significantly promote these techniques in the international community. Bogusław Buszewski, Poland, was appointed the chairman of the Tswett–Nernst Award Board and Václav Kašička, Czechia, became the secretary. As a result of a secret ballot, two winners are selected: one from western Europe and one from central, eastern, and northern European countries. The winners are invited to deliver a plenary lecture.

The statuette and diploma have been presented during the European Symposia on separation methods from the series of International Symposia on Chromatography, starting in 2010 at the 28th ISC in Valencia, Spain. Starting in 2022 in Ljubljana, the Tswett–Nernst Prize is now awarded during the Opening Ceremony of the ISSS symposia.

The organization of this series of symposia under the CEGSS auspices continues via Cluj-Napoca Romania, (27th ISSS 2023) to Messina, Italy, (28th ISSS 2024) and to Belgrade, Serbia, (29th ISSS 2025).

Previous recipients of the Tswett-Nernst Award

2023	Peter Schoenmakers (Amsterdam, The Netherlands) Irena Vovk (Ljubljana, Slovenia)
2022	Coral Barbas (Madrid, Spain) Janusz Pawliszyn (Waterloo, Canada)
2021	Frank Hartmut (Bayreuth, Germany) Eva Smolková-Keulemansová (Prague, Czech Republic)
2018	Michel Martin (Paris, France) Roman Kaliszan (Gdańsk, Poland)
2016	Pavel Jandera (Pardubice, Czech Republic) Klaus Unger (Mainz, Germany)
2014	Frantisek Švec (Berkley, CA, USA) Wolfgang Lindner (Vienna, Austria)
2012	Pat Sandra (Ghent, Belgium)
2010	Günther Bonn (Innsbruck, Austria) Vadim Davankov (Moscow, Russia)

2024 Tswett-Nernst Award

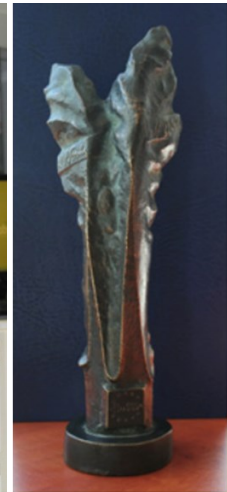
We are delighted to announce that, by the decision of European Tswett-Nernst Award Board and the Central European Group for Separation Sciences (CEGSS), Prof. Bezhan Chankvetadze (Tbilisi, Georgia) and Prof. Luigi Mondello (Messina, Italy) were selected as the recipients of the Tswett-Nernst Award 2024.



Prof. Bezhan Chankvetadze



Prof. Luigi Mondello



ISSS2024 Young Scientists Fellowship

The International Symposium on Separation Sciences 2024 was glad to support 18 promising young scientists by providing free registration for the congress and all related activities including access to the entire scientific programme and exhibition hall, symposium materials (badge, bag, programme & book of abstracts with ISBN, memory stick; other printed materials), daily coffee breaks, lunches and access to social events.

This year's awardees are:

Maja Bensa	University of Ljubljana
Victoria Bohm	University of Rouen Normandie
Kristina Tolić Čop	University of Zagreb
Rebecca Hofer	University of Innsbruck
Dmytro Kosolapov	Charles University
Łukasz Kulinowski	Doctoral School of Medical University of Lublin
Natalia Manousi	Vienna University of Technology
Nicolas Milan Michalides	Comenius University Bratislava
Danijel Milincic	University of Belgrade
Anastasiia Mosendz	Taras Shevchenko National University of Kyiv
Marianna A. Ntorkou	Aristotle University of Thessaloniki
Dominika Osiecka	Gdansk University of Technology
Milica Pešić	University of Belgrade
Nisa Beril Sen	Yeditepe University Istanbul
Valentina Stock	University of Innsbruck
Apostolia Tsiasioti	Aristotle University of Thessaloniki
Lu Turković	University of Zagreb
Ina Varfaj	University of Perugia

The Division of Analytical Chemistry of the Italian Chemical Society Travel Grant Awards



The ISSS 2024 Organizing Committee is very grateful to the Division of Analytical Chemistry of the Italian Chemical Society, which funded four scholarships worth 250 Euros each for young Italian researchers who had an abstract accepted for the ISSS2024 congress.

Fabiola Eugelio
Carmela Maria Montone
Matteo Spedicato

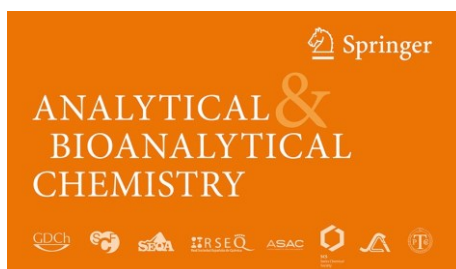
University of Teramo
University of Rome "La Sapienza"
University of Ferrara

Best oral and/or best poster

- **2 Best Oral presentations** (Flash oral session) will be selected and awarded with scholarships for free registration to the ISSS 2025, offered by next symposium chair.

ISSS 2025

- **2 Best Poster prizes** (200 Eur each for selections of books) offered by ABC Springer.



- **Best Poster Award** to a PhD student (250 Eur) offered by EuChemS-DAC Sample Preparation Network.



Special events - Contests



Who Wants to be an INTERNATIONAL SEPARATION SCIENCE STAR ISSS2024

You are invited to join our quiz game!

This year the ISSS 2024 symposium held a quiz game called “Who Wants to be an INTERNATIONAL SEPARATION SCIENCE STAR ISSS2024”.

The quiz game consists of 10 multiple choice questions. The participant who answers the most questions correctly win. In case of a tie, the participant who answers the questions fastest win. Participating is very simple: just connect with mobile phone to a site that will be shown during the competition.

The quiz game will be taken at the end of the afternoon scientific session of Tuesday September 24.

Winner

The first three classified will be awarded with prize of 250 € (1st place), 150 € (2nd place), and 100 € (3rd place).



CHROM-ART

You are invited to join our CHROM-ART contest!

This year, following the success of the 2022 edition, the ISSS 2024 symposium will hold a creative competition called CHROM-ART. Each participant of the symposium will have a chance to submit one "CHROM-artwork".

CHROM-artworks are images that are created during chemical analysis and can also be viewed from an artistic point of view (e.g. a sunrise pattern on an HPTLC plate or a chromatogram in a shape of an object etc.). During the symposium there will be an exhibition of CHROM-ART and symposium participants will vote for the award-winning CHROM-ARTWORK (each participant will have a voting coupon which will be given at the time of registration).

If you agree with your Chrom-artwork (image, title, a brief description max. 120 characters space included), and your name being publicly displayed at the exhibition, apply for the contest via email.

Rules published on the ISSS web page for the participation to the contest

Winner

Three artworks will be awarded based on public votes with a prize of 250 € (1st place), 150 € (2nd place), and 100 € (3rd place).

Virtual Special Collection

SPECIAL COLLECTION

28th International Symposium on Separation Sciences



Submission deadline: 31 January 2025

The **Journal of Separation Science** will be launching a virtual Special Collection from the Symposium "28th International Symposium on Separation Sciences".

Authors participating on the symposium are invited to submit their work presented at the conference. Also, other contributions with a link to this meeting are welcome.

Guest Editors:

Professor Luigi Mondello

Email: lmondello@unime.it

University of Messina, Italy

Professor Peter Q. Tranchida

Email: pqranchida@unime.it

University of Messina, Italy

Submission Guidelines/Instructions

Please refer to the Author Guidelines to prepare your manuscript. Submissions have to be made through the electronic submission system used by Journal of Separation Science at <https://onlinelibrary.wiley.com/page/journal/16159314/homepage/forauthors.html>

When submitting your manuscript, please answer the question: "Is this submission for a special issue?" by selecting the special issue title from the drop-down list.

If you intend to contribute, please send an e-mail with your tentative title to the guest editors.

We are looking forward to receiving your contributions.

Scientific program

Sunday, September 22

14:00 - 19:00	Registration
16:00 - 16:20	Opening Ceremony (Room Vittorio Ricevuto, "Papardo Campus") Chairs: Danilo Corradini, Luigi Mondello Giovanna Spatari – Rector of the University of Messina Nunziacarla Spanò – Head of ChiBioFarAm Department, University of Messina Luisa Torsi – Vice President Scientific Council of CNR Bogusław Buszewski – President CEGSS
16:20 - 16:30	Presentation Tswett - Nerst Awards (Room Vittorio Ricevuto) Chair: Bogusław Buszewski
16:30 - 17:10	Tswett - Nerst Awards Lectures (Room Vittorio Ricevuto) Chair: Bogusław Buszewski 16:30 (A-1) Recent developments in enantioselective liquid-phase separations <u>Bezhán Chankvetadze</u> <i>Tbilisi State University, Georgia</i> <hr/> 16:50 (A-2) Exploring the evolution from one- to five-dimensional separation techniques: A personal journey in advancing chromatography and hyphenated detection <u>Luigi Mondello</u> <i>University of Messina, Italy</i>
17:10 - 18:30	Csaba Horváth Memorial Session (Room Vittorio Ricevuto) Chairs: Živoslav Tešić, Imre Klebovic 17:10 (MS-1) Separation Sciences - the key in phytochemistry <u>Günther K. Bonn</u> <i>Austrian Drug Screening Institute GmbH, Austria</i> <hr/> 17:30 (MS-2) Electrolyte solution-mediated migration behavior of biomolecules in capillary zone electrophoresis <u>Danilo Corradini</u> <i>CNR, Institute for Biological Systems, Italy</i> <hr/> 17:50 (MS-3) Endotoxin quantification by a chemical instrumental analytical (U)HPLC-assay Anika Hoffmann ¹ , Blanka Bucsella ^{1,2} , Mathieu Zollinger ^{1,3} , Kevin Pacios ¹ , <u>Franka Kalman¹</u> ¹ HES-SO Valais-Wallis, Switzerland ² Lonza AG, Switzerland ³ Depiopharm, Switzerland

18:10 (MS-4) Csaba Horváth, the father of reversed phase chromatography -
The revolution of life science
Imre Molnár
Molnár-Institute for applied chromatography, Germany

18:30 – 19:10 Session 1 Plenary lectures (Room Vittorio Ricevuto)

Chair: Günther K. Bonn

18:30 (PL-1) Electrophoretic and spectral techniques in the determination of
microbiomes
Bogusław Buszewski¹, Dominika Błońska²
*¹Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development
Centre, Poland; ²Nicolaus Copernicus University in Toruń, Poland*

18:50 (PL-2) Challenges in chromatographic analyses of bioactives in plant
extracts and food
Irena Vovk¹, Vesna Glavnik¹, Maja Bensa², Etil Guzelmeric³, Nisa Beril
Sen³, Péter G. Ott⁴, Živa Vipotnik¹, Breda Simonovska¹, Simona Strgulc
Krajšek⁵, Ágnes M. Móricz⁴
*¹National Institute of Chemistry, Slovenia; ²University of Ljubljana,
Slovenia; ³Yeditepe University; Türkiye; ⁴HUN-REN Centre for
Agricultural Research, Hungary; ⁵University of Ljubljana, Slovenia*

19:10 – 21:30 Get-together party – “Papardo” Campus University of Messina

Monday, September 23

08:00 - 09:00	Registration	
09:00 - 10:20	Session 2 Plenary lectures (Room Vittorio Ricevuto) Chairs: Róbert Góra, Bezhan Chankvetadze	
09:00	(PL-3) The role of HILIC in uni- and two-dimensional separations of pharmaceuticals, supplements and low-molecular metabolites <u>Petr Česla</u> , Miroslav Kubát, Barbora Tošovská, Michal Kašpar <i>University of Pardubice, Czech Republic</i>	
09:20	(PL-4) Wastewater-based epidemiology to assess pharmaceutical consumption in urban populations <u>Maria-Virginia Coman</u> , Mihaela-Cătălina Herghelegiu, Mihail Simion Beldean-Galea <i>Babeş-Bolyai University, Romania</i>	
09:40	(PL-5) Assessment of purity of avocado oil sold in the US marketplace <u>Pierluigi Delmonte</u> , Amy Ngo, Christelle Lappin <i>US Food and Drug Administration, USA</i>	
10:00	(PL-6) The composition of pyrolysis products of used car tires used as liquid fuel <u>Modest Gertsyuk</u> ¹ , T. Kovalchuk ² , K. Kapral ² <i>¹National Academy of Sciences of Ukraine, Ukraine; ²Leco Instrumente Plzeň, Czech Republic</i>	
10:20 - 10:40	Coffee Break	
10:40 - 12:40	Session 3 (Room V. Ricevuto) Chair: Petr Česla	Session 4 (Room SBA-T-2A) Chair: Maria-Virginia Coman
10:40	(OL-1) Analytical Quality by Design and Design of Experiments: a useless complication or an opportunity for separation sciences? <u>Sandra Furlanetto</u> ¹ , Serena Orlandini ¹ , Benedetta Pasquini ¹ , Roberto Gotti ² <i>¹University of Florence, Italy; ²University of Bologna, Italy</i>	(OL-9) Green techniques and materials for lipid analysis <u>Paola Donato</u> ¹ , Antonella Satira ¹ , Alice Mondello ¹ , Francesca Rigano ¹ , Emanuela Trovato ¹ , Ivana Bonaccorsi ¹ , Luigi Mondello ^{1,2} <i>¹University of Messina, Italy; ²Chromaleont s.r.l., Italy</i>

10:55	<p>(OL-2) Analysis of polycyclic aromatic hydrocarbons in food using cryogenic zone compression gas chromatography-mass spectrometry <u>Mariosimone Zoccali</u>¹, Alessia Arena², Peter Q. Tranchida¹, Luigi Mondello^{1,2} ¹<i>University of Messina, Italy;</i> ²<i>Chromaleont s.r.l., Italy</i></p>	<p>(OL-10) Enantioselective liquid chromatography analysis of phytocannabinoids with low- and high-molecular weight chiral selectors <u>Roccaldo Sardella</u>¹, Ina Varfaj¹, Michele Protti², Samuele Bonafè¹, Maria Grazia Fishta¹, Andrea Carotti¹, Laura Mercolini² ¹<i>University of Perugia, Italy;</i> ²<i>University of Bologna, Italy</i></p>
<hr/>		
11:10	<p>(OL-3) Enhancing non-targeted analysis using comprehensive-two-dimensional gas chromatography coupled to a high-resolution mass spectrometry <u>Sebastiano Pantò</u>¹, Dmitrii Rakov¹, Aous Khalefa¹, Nick Jones² ¹<i>LECO European Application & Technology Centre, Germany;</i> ²<i>LECO Corporation, USA</i></p>	<p>(OL-11) Determination of parabens in cosmetic products by portable capillary liquid chromatography on porous graphitic carbon stationary phases <u>Francesca Rigano</u>¹, Roberta La Tella¹, Michael Ye², Patrik Appelblad³, Paola Donato¹, Paola Dugo^{1,4}, Luigi Mondello^{1,4} ¹<i>University of Messina, Italy;</i> ²<i>MilliporeSigma, USA;</i> ³<i>Merck Life Science, Norway;</i> ⁴<i>Chromaleont s.r.l., Italy</i></p>
<hr/>		
11:25	<p>(OL-4) 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 <i>Trichoderma atroviride</i> <u>Rebecca Hofer</u>, Franziska Lochmann, Daniel Flatschacher, Valentina Stock, Arne Schiller, Susanne Zeilinger, Veronika Ruzsanyi <i>University of Innsbruck, Austria</i></p>	<p>(OL-12) Isotopologues of amphetamine and methamphetamine: separation, enantioseparation and recognition mechanisms in high-performance liquid chromatography <u>Paola Peluso</u>¹, Giorgi Kobidze², Giorgia Sprega², Alfredo Fabrizio Lo Faro², Francesco Paolo Busardò², Bezhan Chankvetadze³ ¹<i>National Research Council, Italy;</i> ²<i>Università Politecnica delle Marche, Italy;</i> ³<i>Tbilisi State University, Georgia</i></p>

11:40	<p>(OL-5) An ageing study on EVOO by GC and HPLC techniques coupled to mass spectrometry for discriminating olive oil lipid substances in archaeological artifacts</p> <p><u>Giuseppe Micalizzi</u>¹, Valentina Chiaia¹, Danilo Donnarumma¹, Anna Irto¹, Clemente Bretti¹, Marta Venuti¹, Gabriele Lando¹, Paola Cardiano¹, Luigi Mondello^{1,2}</p> <p>¹<i>University of Messina, Italy;</i> ²<i>Chromaleont s.r.l., Italy</i></p>	<p>(OL-13) Improving sustainability through modernisation of LC methods</p> <p><u>David Dunthorne</u>, Matthew James, Gemma Lo</p> <p><i>Avantor, United Kingdom</i></p>
11:55	<p>(OL-6) Joint forces of capillary electrophoresis and ICP-MS/MS in monitoring of liposome-active compound systems formation and changes</p> <p><u>Magdalena Matczuk</u>, Marta Stępień, Karolina Ogórek, Kinga Nowak, Joanna Zajda</p> <p><i>Warsaw University of Technology, Poland</i></p>	<p>(OL-14) Exploring the capabilities of a cyanopropyl stationary phase for separating cholesterol oxidation products</p> <p><u>Andrea Castellaneta</u>¹, Ilario Losito¹, Claudio Crisau¹, Mariangela Chisari², Maria Angela Sortino², Cosima Damiana Calvano¹, Tommaso Cataldi¹</p> <p>¹<i>University of Bari Aldo Moro, Italy;</i> ²<i>University of Catania, Italy</i></p>
12:10	<p>(OL-7) Development of novel fluorescent labels for glycan analysis by CE and LC methods</p> <p><u>Jana Lavicka</u>¹, Denisa Smolkova^{1,2}, Michal Gregus², Richard Cmelik¹, Filip Dusa¹, Pavel Bobal²</p> <p>¹<i>Czech Academy of Sciences, Czech Republic;</i> ²<i>Masaryk University Czech Republic</i></p>	<p>(OL-15) Exploring the enantio-recognition mechanism of 3,5-dinitrobenzoyl-amino acids using two Cinchona alkaloid-derived chiral stationary phases: a journey with molecular dynamic simulations</p> <p><u>Ina Varfaj</u>¹, Magdalena Labikova², Roccaldo Sardella¹, Hubert Hettegger³, Wolfgang Lindner⁴, Michal Kohout², Andrea Carotti¹</p> <p>¹<i>University of Perugia, Italy;</i> ²<i>University of Chemistry and Technology, Czech Republic;</i> ³<i>BOKU University, Austria;</i> ⁴<i>University of Vienna, Austria</i></p>

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| <p>12:25 (OL-8) Semi-untargeted approach for <i>Lupinus albus</i> L. traceability
 <u>Fabiola Eugelio</u>¹, Sara Palmieri¹, Marcello Mascini¹, Francesco Della Valle¹, Federico Fanti¹, Eleonora Oliva¹, Michele Del Carlo¹, Dario Compagnone¹, Manuel Sergi²
 ¹University of Teramo, Italy;
 ²University of Rome, Italy;</p> | <p>(OL-16) Method development and environmental assessment for quantitative analysis of oxygen heterocyclic compounds using chromatographic techniques
 <u>Marina Russo</u>¹, Giovanna Cafeo¹, Elisa Irrera¹, Antonella Satira¹, Luigi Mondello^{1,2}, Paola Dugo^{1,2}
 ¹University of Messina, Italy;
 ²Chromaleont s.r.l., Italy</p> |
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12:40 - 14:00 Lunch (foyer Room V. Ricevuto)

12:40 - 14:00 Poster Session A (foyer Room V. Ricevuto)

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

Chairs: Modest Gertsyuk, Perluigi Delmonte

- 14:00 (PL-7) Characterization of natural biomacromolecules by methods of liquid chromatography
Róbert Góra
Comenius University in Bratislava, Slovakia
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- 14:20 (PL-8) LC × LC to unravel the complex polyphenolic profile of winery-related products
 Lidia Montero¹, Mikaela Rajchman¹, Laura Oliveira Lago², Pawel Swit³, Miguel Herrero¹
¹Institute of Food Science Research - CIAL, Spain; ²Federal University of Rio Grande do Sul, Brazil; ³University of Silesia in Katowice, Poland
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- 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
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- 15:00 (PL-10) Application of porous graphitic carbon stationary phases in pharmaceutical analysis
Krisztián Horváth¹, Barnabás Soós², Boglárka Páll², Róbert Kormány²
¹University of Pannonia, Hungary; ²Egis Pharmaceuticals PLC, Hungary

15:20 - 15:40 Coffee Break

15:40 – 17:32	Session 6 (Room V. Ricevuto)	Session 7 (Room SBA-T-2A)
	Chairs: Irena Vovk, Peter Q. Tranchida	Chairs: Miguel Herrero, Danilo Sciarrone
15:40	<p>(FL-1) The application of freeze-dried <i>Lactobacillus plantarum</i> as an innovative approach for cream enrichment in Vitamin D3 and fatty acid profile modification <u>Tetiana Dyrda-Terniuk</u>¹, Viorica Railean¹, Aleksandra Bogumiła Florkiewicz¹, Justyna Walczak-Skierska¹, Mateusz Kolankowski¹, Joanna Rudnicka¹, Dorota Białczak², Paweł Pomastowski¹ ¹Nicolaus Copernicus University in Toruń, Poland; ²Polmlek Grudziądz Sp. z o. o, Poland</p>	<p>(FL-16) Extractive-Liquid sampling Electron Ionization-Mass Spectrometry: direct analyses of pesticides in light cannabis and benzodiazepines as pharmaceuticals or rape drugs <u>Giovanna Nevola</u>¹, Adriana Arigò¹, Giorgio Famiglini¹, Pierangela Palma^{1,2}, Achille Cappiello^{1,2} ¹University of Urbino Carlo Bo, Italy; ²Vancouver Island University, Canada</p>
15:48	<p>(FL-2) Comprehensive characterization of <i>Piper</i> essential oils from Brazil by means of gas chromatography analysis and spectroscopic methods <u>Lorenzo Cucinotta</u>¹, Carmelo Coppolino¹, Elisa Irrera¹, Paola Donato¹, Danilo Sciarrone¹, Luigi Mondello^{1,2}, Tania Maria Grazia Salerno¹ ¹University of Messina, Italy; ²Chromaleont s.r.l., Italy</p>	<p>(FL-17) Honey bacteria as a source of new potential antibacterial therapeutics <u>Dominika Błońska</u>¹, Bogusław Buszewski² ¹Nicolaus Copernicus University in Toruń, Poland; ²Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development Centre, Poland</p>
15:56	<p>(FL-3) Tracing volatile signature of grapes by GC×GC-ToFMS <u>Daniela Fonseca</u>, Nuno Martins, Raquel Garcia, Maria João Cabrita <i>University of Évora, Portugal</i></p>	<p>(FL-18) The role of silver nanoparticles in enhancing detection of low-molecular-weight biomolecules in LDI-MS analysis <u>Ewelina Sibińska</u>¹, Justyna Walczak-Skierska¹, Adrian Arendowski¹, Agnieszka Ludwiczak¹, Aleksandra Radtke¹, Piotr Piszczek¹, Dorota Gabryś², Kinga Robotnik¹, Paweł Pomastowski¹ ¹Nicolaus Copernicus University in Toruń, Poland; ²Maria Skłodowska-Curie National Research Institute of Oncology, Poland</p>

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| 16:04 | (FL-4) Identification of hydrocarbon isomers by means of a novel dual parallel detection based on a GC-FTIR/MS approach
<u>Carmelo Coppolino</u> ¹ , Tania Maria Grazia Salerno ¹ , Daniele Giuffrida ¹ , Paola Donato ¹ , Luigi Mondello ^{1,2}
¹ University of Messina, Italy;
² Chromaleont s.r.l., Italy | (FL-19) Capillary electrophoresis analysis of oligosaccharides and glycans using rhodamine B-based labeling
<u>Denisa Smolkova</u> ^{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 |
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| 16:12 | (FL-5) Insight into bioactivity and phytochemistry of <i>Cistus laurifolius</i> L. originated new type of propolis
<u>Ecesu Sezen</u> ¹ , Rengin Reis ² , Yağmur Özhan ¹ , Hande Sipahi ¹ , Rifat Gimatdin ³ , Ahmet Ceyhan Gören ³ , Hasan Kırmızıbekmez ¹ , Etil Guzelmeric ¹
¹ Yeditepe University, Türkiye;
² Acibadem Mehmet Ali Aydinlar University, Türkiye; ³ Gebze Technical University, Türkiye | (FL-20) Use of new carbon material as stationary phases in superheated water chromatography for the determination of preservatives in food and cosmetic products
<u>Roberta La Tella</u> ¹ , Francesca Rigano ¹ , Paola Donato ¹ , Patrick Appelblad ² , Michael Ye ³ , Paola Dugo ^{1,4} , Luigi Mondello ^{1,4}
¹ University of Messina, Italy;
² Merck Life Science, Norway;
³ MilliporeSigma, USA;
⁴ Chromaleont s.r.l., Italy |
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| 16:20 | (FL-6) LC-LEI-HRMS for characterization of PAHs photo-oxidation phenomena in Mars environment
<u>Tommaso Grazioso</u> ¹ , Genny Grasselli ¹ , Adriana Arigò ¹ , Giorgio Famiglioni ¹ , Pierangela Palma ^{1,2} , John Robert Brucato ³ , Teresa Fornaro ³ , Achille Cappiello ^{1,2}
¹ University of Urbino Carlo Bo, Italy; ² University of Vancouver Island, Canada; ³ University of Florence, Italy | (FL-21) UHPLC-QToF MS analysis of phenolic compounds in okara
<u>Milica M. Pešić</u> , Danijel D. Milinčić, Aleksandar Ž. Kostić, Mirjana B. Pešić, Slađana P. Stanojević
<i>University of Belgrade, Serbia</i> |
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- 16:28 (FL-7) Characterization and tracing of *Cannabis sativa* L. essential oils through a comprehensive quali-quantitative, chiral and isotopic investigation
Francesca Cannizzaro¹, Lorenzo Cucinotta¹, Danilo Sciarrone¹, Giuseppe Micalizzi¹, Valentina Chiaia¹, Filippo Alibrando², Gabriele Branca³, Pietro Maida³, Paolo Oliveri⁴, Luigi Mondello^{1,2}
¹University of Messina, Italy;
²Chromaleont s.r.l., Italy;
³Carabinieri RIS, Messina, Italy;
⁴University of Genova, Italy
- (FL-22) 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
Alessia Arena¹, Mariosimone Zoccali², Peter Q. Tranchida², Luigi Mondello^{1,2}
¹Chromaleont s.r.l., Italy;
²University of Messina, Italy
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- 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) headspace extraction thermal desorption-GC-O, GC-FID/MS and human sensory evaluation
Valentin Schierer^{1,2}, Cornelia Rieder-Gradinger², Erwin Rosenberg²
¹Wood K Plus, Austria; ²TU Wien, Austria
- (FL-23) Determination of sea-food emissions by HS-SPME-GC-MS. Mussel odor volatiles as indicators of quality and environmental pollution
Fabrizio Cincotta¹, Ivana Lidia Bonaccorsi¹, Carmen Rizzo², Teresa Romeo², Antonella Verzera¹
¹University of Messina, Italy;
²Stazione Zoologica Anton Dohrn, Sicily Marine Centre, Italy
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- 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 Bozza¹, Davide Barboni¹, Natasha Damiana Spadafora¹, Simona Felletti², Chiara De Luca¹, Paola Tedeschi¹, Luisa Pasti², Alberto Cavazzini^{1,2}, Martina Catani¹
¹University of Ferrara, Italy;
²Council for Agricultural Research and Economics, Italy
- (FL-24) Use of flow-modulation comprehensive two-dimensional enantio-gas chromatography as valid and flexible alternative to heart-cutting multidimensional enantio-gas chromatography
Micaela Galletta¹, Mariosimone Zoccali¹, Peter Q. Tranchida¹, Luigi Mondello^{1,2}
¹University of Messina, Italy;
²Chromaleont s.r.l., Italy
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16:52	<p>(FL-10) Determination of shellfish emissions by HS-SPME-GC-MS. Mediterranean blue crab odor volatiles for its characterization <u>Maria Merlino</u>¹, Marco Torre², Francesco Tiralongo³, Martina Buda¹, Anthea Miller¹, Concetta Condurso¹ ¹<i>University of Messina, Italy;</i> ²<i>University of Turin, Italy;</i> ³<i>University of Catania, Italy</i></p>	<p>(FL-25) Application of MBT-STAR-BL and MBT-ASTA tests for antibiotic resistance analysis based on MALDI-TOF MS technique <u>Daria Janiszewska</u>¹, Michał Złoch¹, Paweł Pomastowski¹, Marzena Kociołek², Małgorzata Szultka-Młyńska¹ ¹<i>Nicolaus Copernicus University in Toruń, Poland;</i> ²<i>Hospital of Lung Diseases, Poland</i></p>
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17:00	<p>(FL-11) Use of DES-microwave-assisted extraction with SPE clean-up to characterize oxygen heterocyclic compounds in <i>Citrus</i>-scented cosmetics by means of HPLC-PDA <u>Giovanna Cafeo</u>¹, Giorgia Purcaro², Marina Russo¹, Marco Beccaria^{2,3}, Luigi Mondello^{1,4}, Paola Dugo^{1,4} ¹<i>University of Messina, Italy;</i> ²<i>University of Liège, Belgium;</i> ³<i>University of Ferrara, Italy;</i> ⁴<i>Chromaleont s.r.l., Italy</i></p>	<p>(FL-26) Microwave-assisted extraction and characterization by GC×GC-MS of solvolysis products of wind turbine blade materials <u>Giulia Giacoppo</u>^{1,3}, Charlotte Mase^{2,3}, Marco Piparo^{2,3}, Pierre Giusti^{2,3}, Caroline Mangote^{2,3}, Luisa Pasti¹, Alberto Cavazzini¹, Flavio Antonio Franchina^{1,3}, Marco Beccaria^{1,3} ¹<i>University of Ferrara, Italy;</i> ²<i>TotalEnergies, France;</i> ³<i>iC2MC, France</i></p>
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17:08	<p>(FL-12) Characterization and analytical application of lab-made organosilica coatings for sample preparation prior to chromatography determination <u>Anastasiia Mosendz</u>, Valentyna Levchyk, Maryna Zui <i>Taras Shevchenko National University of Kyiv, Ukraine</i></p>	<p>(FL-27) Bioactive content identification through liquid chromatography high resolution mass spectrometry and in vitro enzyme inhibitory effect of 19 chili pepper varieties <u>Cinzia Cafarella</u>¹, Aristeidis S. Tsagkaris², Francesca Rigano¹, Anna Loučková², Katia Arena¹, Paola Dugo^{1,3}, Jana Hajšlová², Luigi Mondello^{1,3} ¹<i>University of Messina, Italy;</i> ²<i>University of Chemistry and Technology Prague, Czech Republic;</i> ³<i>Chromaleont s.r.l., Italy</i></p>

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| 17:16 | <p>(FL-13) Applicability of MTBE lipid extraction assisted by microwave in food analysis. Case of study: extraction of pistachio oil
 <u>Carlo Bellinghieri</u>¹, Giulia Giacoppo¹, Andrea Schincaglia^{1,2}, Giorgia Purcaro², Sebastiano Pantò³, Alberto Cavazzini², Luisa Pasti¹, Flavio Antonio Franchina¹, Marco Beccaria¹
 ¹University of Ferrara, Italy;
 ²University of Liège, Belgium;
 ³LECO European Application and Technology Center, Germany</p> | <p>(FL-28) Green separation and isolation of aroma-active components from mixture of natural aliphatic and aromatic esters by reversed phase liquid chromatography
 <u>Veronika Výboňová</u>^{1,2}, Katarína Hroboňová¹
 ¹Slovak University of Technology, Slovakia; ²Axxence Slovakia s.r.o., Slovakia</p> |
| 17:24 | <p>(FL-14) Miniaturised extraction procedure coupled with a rapid and eco-friendly chromatographic approach for the identification of oxygen heterocyclic compounds in foodstuffs
 <u>Elisa Irrera</u>¹, Giovanna Cafeo¹, Marina Russo¹, Luigi Mondello^{1,2}, Paola Dugo^{1,2}
 ¹University of Messina, Italy;
 ²Chromaleont s.r.l., Italy</p> | <p>(FL-29) QSRR approach for identification of phenolic compounds and evaluation of their retention behaviour under reverse-phase liquid chromatography
 <u>Roberto Laganà Vinci</u>¹, Katia Arena¹, Francesca Rigano¹, Francesco Cacciola¹, Paola Dugo^{1,2}, Luigi Mondello^{1,2}
 ¹University of Messina, Italy;
 ²Chromaleont s.r.l., Italy</p> |
| 17:32 | <p>(FL-15) Comparative analysis of innovative chemometric tools for GC×GC-(HR)TOF-MS wine chromatogram processing
 <u>Nemanja Koljančić</u>¹, Olga Vyviurska¹, Adriano A. Gomes^{1,2}, Ivan Špánik¹
 ¹Slovak University of Technology, Slovakia; ²Universidade Federal do Rio Grande do Sul, Brazil</p> | <p>(FL-30) Analytical evaluation of phenols in olive oil by-products
 <u>Wadir M.V. Marchesiello</u>¹, Micaela Galletta¹, Marina Russo¹, Francesco Cacciola¹, Paola Dugo^{1,2}, Luigi Mondello^{1,2}
 ¹University of Messina, Italy;
 ²Chromaleont s.r.l., Italy</p> |
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17:40 **CEGSS Meeting**

19:30-22:30 **Gala dinner - Grecale Restaurant Messina**

Tuesday, September 24

09:00 – 10:20		Session 8 Plenary lectures (<i>Room Vittorio Ricevuto</i>)	
Chairs: Gérard Hopfgartner, Gert Desmet			
09:00	(PL-11) Investigation of enantioselective noncovalent molecular interactions by affinity capillary electrophoresis <u>Václav Kašička</u> , Jan Bílek, Dušan Koval, Veronika Šolínová, Petra Sázelová <i>Czech Academy of Sciences, Czech Republic</i>		
09:20	(PL-12) Isomer-selective LC in lipidomics and metabolomics <u>Michael Lämmerhofer</u> , Kristian Serafimov, Adrian Brun, Simon Jaag, Xiaoqing Fu, Kristina Dittrich, Matthias Olfert, Cornelius Knappe <i>University of Tuebingen, Germany</i>		
09:40	(PL-13) Chemometrics: a constructive tool for separation sciences <u>Paolo Oliveri</u> <i>University of Genova, Italy</i>		
10:00	(PL-14) Navigating the path to sustainable analytical chemistry <u>Elia Psillakis</u> <i>Technical University of Crete, Greece</i>		
10:20 – 10:40		Coffee Break	
10:40 – 12:40		Session 9 (<i>Room V. Ricevuto</i>)	Session 10 (<i>Room SBA-T-2A</i>)
		Chair: Alexios-Leandros Skaltsounis	Chair: Erwin Rosenberg
10:40	(OL-17) Goat milk powder enriched with grape pomace seed extract: Mixture optimisation and UHPLC-Q-ToF-MS characterization <u>Mirjana B. Pešić</u> , Ivana Sredović-Ignjatović, Aleksandar Ž. Kostić, Slađana P. Stanojević, Danijel D. Milinčić <i>University of Belgrade, Serbia</i>	(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, <u>Mihail Simion Beldean-Galea</u> <i>Babeş-Bolyai University, Romania</i>	

10:55	<p>(OL-18) Integrated LC-MS analysis of Maillard-modified lipids in edible insects <u>Giovanni Ventura</u>, Michele Pellegrino, Cosima D. Calvano, Tommaso Cataldi <i>University of Bari Aldo Moro, Italy</i></p>	<p>(OL-26) Modifications of polymer nanofibers: advanced extraction materials for sample preparation <u>Ivona Lhotská</u>¹, Aneta Kholová¹, Martina Háková¹, Jakub Erben², Jiří Chvojka², Erwin Rosenberg³, František Švec¹, Dalibor Šatínský¹ ¹<i>Charles University, Czech Republic;</i> ²<i>Technical University of Liberec, Czech Republic;</i> ³<i>TU Wien, Austria</i></p>
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11:10	<p>(OL-19) Quantitation of WADA-prohibited and monitored stimulants in dietary supplements using LC-MS/MS and LC-DAD <u>Margita Szilágyi-Utczás</u>, Zoltán Pálincás <i>Hungarian University of Sports Science, Hungary</i></p>	<p>(OL-27) Simplified analytical workflow for contaminants analysis in olive oil using low-pressure gas chromatography <u>Antonio Ferracane</u>¹, Danilo Donnarumma¹, Peter Q. Tranchida¹, Mariosimone Zoccali¹, Alessia Arena², Luigi Mondello^{1,2} ¹<i>University of Messina, Italy;</i> ²<i>Chromaleont s.r.l., Italy</i></p>
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11:25	<p>(OL-20) Oxysterol profile in Zebrafish by UPLC-APCI-MS/MS: a potential marker for development stage Francesco Della Valle¹, Fabiola Eugelio¹, <u>Federico Fanti</u>¹, Carmine Merola¹, Giulia Caioni¹, Marcello Mascini¹, Michele Amorena¹, Michele Del Carlo¹, Manuel Sergi², Dario Compagnone¹ ¹<i>University of Teramo, Italy;</i> ²<i>Sapienza University of Rome, Italy</i></p>	<p>(OL-28) Bugs for buffet: optimization of a QuEChERS-GC/MS protocol to assess the organic micropollutant contamination in edible insects <u>Luca Rivoira</u>, Maria Concetta Bruzzoniti <i>University of Turin, Italy</i></p>
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11:40	<p>(OL-21) Quality assurance of plant-based products through analytical chemistry and biological test systems - Applications in phytocosmetics, phytopharmacy and phytonutrition <u>Thomas A. E. Jakschitz</u>^{1,2}, Günther K. Bonn¹ ¹<i>Austrian Drug Screening Institute GmbH, Austria;</i> ²<i>University of Innsbruck, Austria</i></p>	<p>(OL-29) Electromembrane extraction of basic drugs from human urine on-line coupled with capillary electrophoresis <u>Petr Tůma</u>, František Opekar <i>Charles University, Czech Republic</i></p>

11:55	(OL-22) Harnessing the potential of 1.0 mm ID columns in UHPLC-HRMS based untargeted metabolomics <u>Danila La Gioia</u> , Eduardo Sommella, Pietro Campiglia <i>University of Salerno, Italy</i>	(OL-30) How proteomics analysis can be advanced for studying biological, food and cultural heritage samples <u>Mariachiara Bianco</u> , Elena C.L. Rigante, Ludovica S. Guadalupi, Cosima D. Calvano, Ilario Losito, Tommaso Cataldi <i>University of Bari Aldo Moro, Italy</i>
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 <u>Siddharth Jadeja</u> , Hana Sklenarova, Juraj Lenco <i>Charles University, Czech Republic</i>	(OL-31) Plant labelling with $^{13}\text{CO}_2$ to demonstrate root exudates trapping with non-common sampling <u>Victoria Bohm</u> , Pascal Cardinael, Matthieu Chauvat, Estelle Forey, Valérie Agasse <i>Univ Rouen Normandie, France</i>
12:25	(OL-24) Non-invasive CYP3A4 breath test for predicting individual drug responses <u>Valentina Stock</u> 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 ¹ <i>University of Innsbruck, Austria;</i> ² <i>University of Vienna, Austria;</i> ³ <i>Brandenburg University of Technology Cottbus-Senftenberg, Germany</i>	(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) <u>Domenica Mangraviti</u> ¹ , Francesca Rigano ¹ , Cinzia Cafarella ¹ , Katia Arena ¹ , Paola Dugo ^{1,2} , Luigi Mondello ^{1,2} ¹ <i>University of Messina, Italy;</i> ² <i>Chromaleont s.r.l., Italy</i>

12:40 – 14:00 Lunch (foyer Room V. Ricevuto)

12:40 – 14:00 Poster Session B (foyer Room V. Ricevuto)

14:00 – 15:20 Session 11 Plenary lectures (Room Vittorio Ricevuto)

Chairs: Khrisztíán Horváth, Václav Kašíčka

14:00	(PL-15) LC-GC×GC for MOSH and MOAH analysis: unlock new potential and enhance the level of understanding <u>Giorgia Purcaro</u> , Aleksandra Gorska, Grégory Bauwens <i>University of Liège, Belgium</i>
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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
TU Wien, Austria

14:40 (PL-17) *Olea europaea*: a compelling source of health promoting biomolecules and an inspiration for the semi-synthetic design of bioactive analogues
Leandros A. 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 Tešić¹, Milica Fotirić Akšić¹, Mekjel Meland², Nikola Horvacki¹, Biljana Lončar³, Uroš Gašić¹, Lato Pezo⁴, Milica Kalaba⁴
¹University of Belgrade, Serbia; ²Norwegian Institute of Bioeconomy Research, Norway; ³University of Novi Sad, Serbia; ⁴Institute of General and Physical Chemistry, Serbia

15:20 – 15:40 Coffee Break

15:40 – 17:25 Session 12 (Room V. Ricevuto)
Chair: Imre Molnár

Session 13 (Room SBA-T-2A)
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 Sciarrone¹, Lorenzo Cucinotta¹, Francesca Cannizzaro¹, Luigi Mondello^{1,2}
¹University of Messina, Italy;
²Chromaleont s.r.l., Italy

(OL-40) Greening the downstream of biopharmaceuticals through process intensification and the use of innovative eco-compatible solvents
Martina Catani¹, Desiree Bozza¹, Chiara De Luca¹, Simona Felletti¹, Matteo Spedicato¹, Marco Macis², Antonio Ricci², Alberto Cavazzini^{1,3}
¹University of Ferrara, Italy;
²Fresenius Kabi iPSUM, Italy;
³Council for Agricultural Research and Economics, Italy

15:55 (OL-34) Developing fuel property prediction models using comprehensive two-dimensional gas chromatography
Noemae Lim¹, Markus Latschka², Georg Lenk², Markus Maly², Erwin Rosenberg¹
¹TU Wien, Austria; ²OMV 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	<p>(OL-35) Selective isolation of chemicals by a customized GC×GC setup <u>Matyas Ripszam</u>, Tobias Bruderer, Federico M. Vivaldi, Serena Reale, Fabio Di Francesco <i>University of Pisa, Italy</i></p>	<p>(OL-42) Preparation of monolith for online extraction and LC–MS analysis of β-estradiol in serum via a simple multicomponent reaction <u>Carmela Maria Montone</u>¹, Sara Elsa Aita¹, Andrea Cerrato¹, Chiara Cavaliere¹, Aldo Laganà^{1,2}, Susy Piovesana¹, Enrico Taglioni¹, Anna Laura Capriotti¹ ¹<i>University of Rome “La Sapienza”, Italy;</i> ²<i>INBB, Biostructures and Biosystems National Institute, Italy</i></p>
<hr/>		
16:25	<p>(OL-36) Development of HILIC×RP-LC platforms for qualitative screening of bioactive compounds in food and natural products Katia Arena¹, Roberto Laganà Vinci¹, <u>Francesco Cacciola</u>¹, Paola Dugo^{1,2}, Luigi Mondello^{1,2} ¹<i>University of Messina, Italy;</i> ²<i>Chromaleont s.r.l., Italy</i></p>	<p>(OL-43) Microwave-assisted extraction: a sustainable approach to fatty acid production from wheat bran <u>Giulia De Soricellis</u>, Gloria Brusotti, Lucrezia Macellaro, Enrica Calleri <i>University of Pavia, Italy</i></p>
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16:40	<p>(OL-37) Application of a Doehlert design in flow-modulated comprehensive two-dimensional gas chromatography <u>Olga Vyviurska</u>, Dominika Sklenárová, Ivan Špánik <i>Slovak University of Technology in Bratislava, Slovakia</i></p>	<p>(OL-44) A miniaturized method for the simultaneous analysis of vitamin D metabolites and total lipidome in human serum <u>Danilo Donnarumma</u>¹, Alessia Arena², Emanuela Trovato¹, Francesca Rigano¹, Mariosimone Zoccali¹, Luigi Mondello^{1,2} ¹<i>University of Messina, Italy;</i> ²<i>Chromaleont s.r.l., Italy</i></p>

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- 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. Kalogiouri¹, Natalia Manousi^{1,2}, Antonio Ferracane³, Peter Q. Tranchida³, Luigi Mondello^{3,4}, Victoria F. Samanidou¹, Erwin Rosenberg²
¹*Aristotle University of Thessaloniki, Greece*; ²*TU Wien, Austria*; ³*University of Messina, Italy*; ⁴*Chromaleont s.r.l., Italy*
- (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}
¹*University of Rome "La Sapienza", Italy*; ²*INBB, Biostructures and Biosystems National Institute, Italy*
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- 17:10 (OL-39) Exploring the flavour profiles of gin using high-capacity sorptive extraction and GC×GC-TOF MS
Daniela Peroni¹, Meriem Gaida², Laura McGregor²
¹*SRA Instruments Spa, Italy*; ²*SepSolve Analytical, United Kingdom*
- (OL-46) Two birds with one stone: FFF-Multidetector as isolation and quality control platform for extracellular vesicles
Anna Placci¹, Stefano Giordani¹, Ghazal Narimanfar¹, Barbara Roda^{1,2}, Andrea Zattoni^{1,2}, Pierluigi Reschiglian^{1,2}, Lucia Catani^{1,3}, Valentina 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 (Room Vittorio Ricevuto)

Wednesday, September 25

09:00 - 09:40	Session 14 Plenary lectures (<i>Room Vittorio Ricevuto</i>) Chairs: Elia Psillakis, Michael Lämmerhofer
09:00	(PL-19) On the performance of a new generation micro-pillar array columns <u>Gert Desmet</u> <i>Vrije Universiteit Brussel, Belgium</i>
09:20	(PL-20) Going with the flow: strategies for automating sample treatment <u>Marcela Alves Segundo</u> <i>University of Porto, Portugal</i>
09:40 - 10:25	Session 15 (<i>Room Vittorio Ricevuto</i>) Chairs: Elia Psillakis, Michael Lämmerhofer
09:40	(OL-47) Relative response factors in gas chromatography: a comparison between multiple detectors Monica Romagnoli ¹ , Delphine Zanella ² , Alberto Cavazzini ^{1,3} , <u>Flavio A. Franchina</u> ¹ <i>¹University of Ferrara, Italy; ²LyondellBasell, Italy; ³Council for Agricultural Research and Economics, Italy</i>
09:55	(OL-48) Novel strategy based on liquid electron ionization (LEI) interface for targeted and untargeted analysis in a forensic application <u>Genny Grasselli</u> ¹ , Adriana Arigò ¹ , Giorgio Famiglioni ¹ , Pierangela Palma ¹ , Zdena Skrob ² , Tomas Cajthaml ² , Achille Cappiello ¹ <i>¹University of Urbino Carlo Bo, Italy; ²Charles University, Czech Republic</i>
10:10	(OL-49) Analyses of airborne particulate matter in recycling centers using advanced mass spectrometry <u>Joseph M. Levermore</u> ^{1,2} , Nick Jones ³ , David Green ^{1,2} , Delphine Bard ⁵ , Yukari Ishikawa ^{1,2} , Frank Kelly ^{1,2} , Stephanie Wright ^{1,2} <i>¹Imperial College London, United Kingdom; ²LECO Corporation, USA and LECO Europe, Germany; ³UK Health and Safety Executive, United Kingdom</i>
10:25 - 10:40	Coffee Break
10:40 - 12:40	Session 16 (<i>Room Vittorio Ricevuto</i>) Chair: Marcela Alves Segundo
10:40	(OL-50) Potential of nano-liquid chromatography for the analysis of biomolecules and contaminants <u>Zeineb Aturki</u> ¹ , Giovanni Sciarretta ^{1,2} , Enrica Donati ¹ , Giovanni D'Orazio ¹ <i>¹National Council of Research, Italy; ²Sapienza University of Rome, Italy</i>

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- 10:55 (OL-51) SEC-RPLC-MS screening of natural extracts and identification of ligands with high affinity towards PPAR α and PPAR γ receptors
Francesca Rinaldi, Giulia De Soricellis, Sofia Salerno, Enrica Calleri
University of Pavia, Italy
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- 11:10 (OL-52) Sustainable approach in analytical chemistry for the separation of phenolic acids in coffee by nano liquid chromatography
Giovanni D'Orazio¹, Katia Bua^{1,2}, Chiara Fanali³, Chiara Dal Bosco², Alessandra Gentili²
¹National Council of Research, Italy; ²Sapienza University of Rome, Italy;
³Campus Bio-Medico University of Rome, Italy
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- 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-Bigourd¹, Cyril Szopa¹, David Coscia¹, Jean-Pierre Pineau¹, Vincent Guerrini¹, Frederic Ferreira¹, Fabrice Bertrand¹, Audrey Boco¹, Gabin Bergerot², Arnaud Philippart², Guillaume Rioland³, Arnaud Buch⁴, Valérie Peulon-Agasse², Pascal Cardinael²
¹Sorbonne Université, France; ²Normandie Univ, France; ³Centre National d'Etudes Spatiales, France; ⁴ Paris-Saclay University, France
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- 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
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- 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. Milinčić¹, Katarina Delić^{1,2,3}, Pierre-Louis Teissedre^{2,3}, Mirjana B. Pešić¹
¹University of Belgrade, Serbia; ² Université de Bordeaux, France; ³USC 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– 12:45 Closing Ceremony - Presentation of the 29th International Symposium on Separation Sciences – Belgrade, Serbia

- PS-1 Forest springs in Czechia. Is the water safe to drink?
Lukas Alexa¹, Hana Cigankova¹, Hana Hlavackova^{1,2}, Sona Kourilova², Pavel Mikuska¹, Petra Itterheimova¹, Petr Kuban¹, Tomas Matousek¹, Magdalena Baresova², Martin Pivokonsky²
¹*Czech Academy of Sciences, Czech Republic*
²*Brno University of Technology, Czech Republic*
- PS-2 Nitrogen and hydrogen as alternative carrier gases in GC-FID analysis of bergamot essential oil
Filippo Alibrando^{1,2}, Giuseppe Micalizzi², Luigi Mondello^{1,2}
¹*Chromaleont s.r.l., Italy*
²*University of Messina, Italy*
- PS-3 Scouting of separation strategies in comprehensive two-dimensional liquid chromatography for the in-depth metabolites characterization of complex food samples
Katia Arena¹, Roberto Laganà Vinci¹, Francesco Cacciola¹, Paola Dugo^{1,2}, Luigi Mondello^{1,2}
¹*University of Messina, Italy*
²*Chromaleont s.r.l., Italy*
- PS-4 Effect of water matrix on removal of pesticides by UF/NF/RO membranes
Bruna Babić Visković, Ivana Grbin, Danijela Ašperger, Davor Dolar
University of Zagreb, Croatia
- PS-5 A novel LC-ECD/UV method for the simultaneous determination of monoamine, nucleotide and β -endorphin neurotransmitters
Mária Baranyi, Orsolya Karácsony, Beáta Sperlág
Hungarian Research Network, Hungary
- PS-6 Analyses of mycotoxins in edible insects: insights from scientific literature
Maja Bensa¹, Konstantina Papastavropoulou², Charalampos Proestos², Irena Vovk³
¹*University of Ljubljana, Slovenia*
²*University of Athens, Greece*
³*National Institute of Chemistry, Slovenia*
- PS-7 Analysis of coenzyme Q10 (CoQ10) and shorter isoprenoid tail lengths (CoQn, n = 6-9) by reversed-phase liquid chromatography coupled with APCI-MS
Mariachiara Bianco, Ilario Losito, Beniamino Leoni, Onofrio D. Palmitessa, Massimiliano Renna Pietro Santamaria, Cosima D. Calvano, Tommaso Cataldi
University of Bari Aldo Moro, Italy

- PS-8 Identification of honey microbiome and their antibacterial properties
Dominika Błońska¹, Bogusław Buszewski²
¹*Nicolaus Copernicus University, Poland*
²*Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development Centre, Poland*
- PS-9 Enantioseparation of the non-ionic/not-ionizable allantoin with Cinchona alkaloid-based zwitterionic chiral stationary phases
Samuele Bonafè¹, Cinzia Pagano¹, Elisa Bianconi¹, Laura Micolini², Antonio Macchiarulo¹, Luana Perioli¹, Andrea Carotti¹, Roccald Sardella¹
¹*University of Perugia, Italy*
²*Alma Mater Studiorum University of Bologna, Italy*
- PS-10 Red wine volatile organic compounds evolution in winery conditions: inox versus oak barrels
 Nuno Martins, Daniela Fonseca, Ana Januário, Raquel Garcia, Maria João Cabrita
University of Évora, Portugal
- PS-11 Determination of micropollutants and transformation products in urban runoff: an application of target and suspect screening with LC-HRMS
M. Isabel Cadena-Aizaga¹, Sergi Sabater^{1,2}, Arturo Elosegi³, Pablo Gago-Ferrero⁴, Nuria de Castro-Català⁵, Mira Petrović^{1,6}
¹*Catalan Institute for Water Research (ICRA), Spain*
²*University of Girona, Spain*
³*University of the Basque Country (UPV/EHU), Spain*
⁴*Spanish Council for Scientific Research (CSIC), Spain*
⁵*University of Barcelona, Spain*
⁶*Catalan Institution for Research and Advanced Studies (ICREA), Spain*
- PS-12 Diastereomer separation of synthetic phosphorothioate oligonucleotides using one-dimensional and two-dimensional liquid chromatography
Niklas Carstensen, Faiyang Li, Cornelius Knappe, Michael Lämmerhofer
University of Tübingen, Germany
- PS-13 Development of a new extraction method of pesticides from soil using direct-immersion SPME LC-tips followed by GC-MS/MS
R. Sara Carvalho, João Brinco, Marco Gomes da Silva, Alexandra B. Ribeiro, Nazaré Couto, Paula Guedes, Eduardo P. Mateus
NOVA University of Lisbon, Portugal
- PS-14 The synergic interplay between liquid chromatography, UV spectroscopy and high-resolution mass spectrometry for the confident identification of cucurbitacins in bitter unripe melons
Andrea Castellaneta, Ilario Losito, Onofrio Davide Palmitessa, Adriano Didonna, Massimiliano Renna, Pietro Santamaria, Cosima Damiana Calvano, Tommaso Cataldi
University of Bari Aldo Moro, Italy

- PS-15 Dynamic headspace extraction as an alternative method to collect PFAS from environmental samples
Maria Chiara Corviseri, Allan Polidoro, Marco De Poli, Claudia Stevanin, Tatiana Chenet, Alberto Cavazzini, Luisa Pasti, Flavio Antonio Franchina
University of Ferrara, Italy
- PS-16 Development of cost-effective system for sample deposition in thin layer chromatography: evaluation and application on plant extracts
 Enrico Serni, Giovanni D'Orazio, Roberto Moscardelli
National Council of Research, Italy
- PS-17 Uptake, accumulation, and effects at growth and physiological level of perfluorooctanoic acid (PFOA) in basil (*Ocimum basilicum* L.) plants
Enrica Donati¹, Anna Wyrwicka-Drewniak², Laura Passatore¹, Isabel Nogués¹, Fabrizio Pietrini¹, Massimo Zacchini¹
¹*National Council of Research, Italy*
²*University of Lodz, Poland*
- PS-18 High-throughput sample preparation for the evaluation of 104 Pesticides in Hemp Inflorescence According to AOAC SMPR 2018.011
Antonio Ferracane¹, Danilo Donnarumma¹, Luigi Mondello^{1,2}
¹*University of Messina, Italy*
²*Chromaleont s.r.l., Italy*
- PS-19 Lipid profile alteration in diffuse intrinsic pontine glioma cells by drug-candidates ONC201 and THX6
Silvana Filieri¹, Giuseppe Micalizzi², Morena Miciaccia¹, Danilo Donnarumma², Olga Maria Baldelli¹, Anselma Liturri¹, Domenico Armenise¹, Luigi Leonardo Palese¹, Maria Grazia Perrone¹, Savina Ferorelli¹, Luigi Mondello^{2,3}, Paola Dugo², Antonio Scilimati¹, Anna Maria Sardanelli¹
¹*University of Bari Aldo Moro, Italy*
²*University of Messina, Italy*
³*Chromaleont s.r.l., Italy*
- PS-20 The potential of enzymatic hydrolysis with HS-SPME-GC×GC-ToFMS for the study of volatile signature of grapes
Daniela Fonseca, Nuno Martins, Raquel Garcia, Maria João Cabrita
University of Évora, Portugal
- PS-21 Determination of pharmaceuticals by capillary HPLC-MS/MS
Raul Franceschini¹, Serguei V. Calugaru², Elisabeth P. Gates², W. Raymond West², Milton L. Lee²
¹*SRA Instruments S.p.a., Italy*
²*Axcend L.L.C., USA*
- PS-22 Volatile organic compounds in extra virgin olive oil: sensory quality and shelf-life assessment
Flávia Freitas^{1,2}, Maria João Cabrita², Marco Gomes da Silva¹
¹*NOVA University of Lisbon, Portugal*
²*University of Évora, Portugal*

- PS-23 Application of chromatographic techniques for the analysis of urinary bacterial metabolites of the intestinal microflora in Parkinson's disease
Paulina Gałtarek, Joanna Kałużna-Czaplińska
Lodz University of Technology, Poland
- PS-24 Towards an AF4-UV-MALS platform online coupled with raman microspectroscopy for the analysis of nanoplastics in commercial bovine milk
Stefano Giordani¹, Maximilian J. Huber², Andrea Zattoni¹, Barbara Roda¹, Pierluigi Reschiglian¹, Valentina Marassi¹, Natalia P. Ivleva²
¹*University of Bologna, Italy*
²*Technical University of Munich, Germany*
- PS-25 Concentration sensitivity improving in capillary electrophoresis-frontal analysis for drug-plasma protein affinity studies
Taťána Bržezická, Lenka Kohútová, Hana Mlčochová, Tereza Zapletalová,
Zdeněk Glatz
Masaryk University, Czech Republic
- PS-26 HPTLC analyses of Japanese knotweed and Bohemian knotweed leaves extracts obtained by supercritical fluid extraction
Vesna Glavnik, Irena Vovk
National Institute of Chemistry, Slovenia
- PS-27 Performance of a versatile absorbance detector for miniaturized and portable LC systems
Zuzana Gogaľová, Vladislav Kahle, Jozef Šesták
Czech Academy of Sciences, Czech Republic
- PS-28 From matrix to FAME: rapid profiling of fatty acids
André Jorge^{1,2}, Bernardo Quintella³, M. João Lança¹, Marco Gomes da Silva²
¹*University of Évora, Portugal*
²*NOVA University of Lisbon, Portugal*
³*University of Lisbon, Portugal*
- PS-29 Breast milk pretreatment for HPLC-MS/MS determination of DINCH plasticizer metabolites
Renáta Górová, Alžbeta Oravcová, Helena Jurdáková
University of Bratislava, Slovakia
- PS-30 The quantification of target compounds using GC×GC-high resolution MS. Pitfalls and proposed strategies
Thomas Groeger¹, Sandra Piel^{1,2}, Lukas Schwalb^{1,2}, Barbara Giocastro³, Thomas Adam³, Ralf Zimmermann^{1,2}
¹*Joint Mass Spectrometry Centre (JMSC), Germany*
²*University of Rostock, Germany*
³*University of the Bundeswehr Munich, Germany*

- PS-31 HPLC-HRMS analysis of selected bisphenols and their degradation products via target, suspect and non-target approach
Lucia Hojová¹, Simona Pisoňová¹, Marian Marton², Marian Vojs², Andrea Vojs Staňová^{1,3}
¹*Comenius University in Bratislava, Slovakia*
²*Slovak University of Technology, Slovakia*
³*University of South Bohemia in Ceske Budejovice, Czech Republic*
- PS-32 Achiral-chiral HPLC-DAD method coupled with online SPE sample preparation for the analysis of nonsteroid anti-inflammatory drugs in water
Paula Lazorová, Katarína Hroboňová
Slovak University of Technology, Slovakia
- PS-33 Quantitative assessment of therapeutic peptides via capillary zone electrophoresis with repeated sample injection
Ondrej Stefanik, Peter Mikus, Juraj Piestansky
Comenius University in Bratislava, Slovakia
- PS-34 HPLC-MS/MS method development for the determination of free carnitine, creatine and creatinine in tears
Michaela Šimurdová, Helena Jurdáková, Renáta Górová
Comenius University in Bratislava, Slovakia
- PS-35 UHPLC 2.0: greener separations, lower footprint - replacing ACN and MeOH with sustainable alternatives
Oktawia Kalisz¹, Gabriela Hulicka¹, Marek Tobiszewski², Szymon Bocian¹
¹*Nicolaus Copernicus University, Poland*
²*University of Technology (GUT), Poland*
- PS-36 Development and validation of a capsule phase microextraction method combined with gas chromatography-tandem mass spectrometry for the determination of polychlorinated biphenyls in water samples
Natasa P. Kalogiouri¹, Natalia Manousi^{1,2}, George Efstratiadis¹, Abuzar Kabir³, Kenneth Furton³, George Zachariadis¹, Erwin Rosenberg²
¹*Aristotle University of Thessaloniki, Greece*
²*TU Wien, Austria*
³*Florida International University, USA*
- PS-37 Untargeted analysis of cigarette leachate extracts using high capacity sorptive extraction followed by TD-GC×GC-MS
Irina Kandylioti, Elefteria Psillakis
Technical University of Crete, Greece
- PS-38 Forming of a novel type of HPLC column by bridging of discrete silica particles
Pavel Karásek, Josef Planeta, Michal Roth
Institute of Analytical Chemistry of the Czech Academy of Sciences, Czech Republic

- PS-39 The phenolic profile of common European vinegars
Michal Kašpar, Petr Česla
University of Pardubice, Czech Republic
- PS-40 Advanced nanofibrous sorbents for the extraction of pollutants from river waters and protein matrixes
Aneta Kholová¹, Ivona Lhotská¹, Jakub Erben², Jiří Chvojka², František Švec¹, Dalibor Šatínský¹
¹*Charles University, Czech Republic*
²*Technical University of Liberec, Czech Republic*
- PS-41 Effect of vancomycin-modified SPIONS on methicillin-sensitive and resistant *Staphylococcus aureus*
 Julia Werle¹, Jakub Podhajsky¹, Kristyna Buresova¹, Agnes Phlosi², Katerina Dunovska¹, Eva Klapkova¹, Vedha Hari B Narayanan³, Karel Kotaska¹, Joe Modise², Richard Prusa¹, Rene Kizek¹
¹*Motol University Hospital, Czech Republic*
²*Vaal University of Technology, South Africa*
³*SASTRA Deemed University, India*
- PS-42 Transferring the CE-QqQ method to CE-QToF for the untargeted analysis of dietary supplements containing *Boswellia serrata* extract
Dmytro Kosolapov¹, Pavel Jáč¹, David M. González², Lucie Nováková¹
¹*Charles University, Czech Republic*
²*University of Jaén, Spain*
- PS-43 Protein profile and ATR-FTIR analysis of optimised mixture of goat milk powder and grape pomace seed extract
Aleksandar Ž. Kostić, Danijel D. Milinčić, Jovana Petrović, Ivana Sredović-Ignjatović, Slađana P. Stanojević, Mirjana B. Pešić
University of Belgrade, Serbia
- PS-44 Direct counting approach for quantification of water-dispersed nanoparticles
Jana Křivánková, Julie Weisová, Antonín Hlaváček
Academy of Sciences, Czech Republic
- PS-45 Determination of amino acids in green coffee beans using hydrophilic interaction chromatography coupled to mass spectrometry
Miroslav Kubát, Michal Kašpar, Soňa Řezková, Petr Česla
University of Pardubice, Czech Republic
- PS-46 Development of a magnet-integrated fabric phase sorptive extraction method combined with GC-MS/MS for the determination of 16 polycyclic aromatic hydrocarbons in water samples
Natalia Manousi^{1,2,3}, Alexandra Beina¹, Abuzar Kabir⁴, Kenneth Furton⁴, Erwin Rosenberg², George Zachariadis¹, Natasa P. Kalogiouri¹
¹*Aristotle University of Thessaloniki, Greece*
²*TU Wien, Austria*
³*American College of Thessaloniki, Greece*
⁴*Florida International University, USA*

- PS-47 Determination of hexavalent chromium in eyeshadow «toy» cosmetics
Giorgia Mattei, Clara Sette, Luca Lucentini, Enrico Veschetti
Italian National Institute of Health, Italy
- PS-48 One step derivatization and switchable hydrophilic solvent microextraction for the determination of adamantane analogues in human urine by HPLC-FLD
Marianna Ntorkou, Paraskevas D. Tzanavaras, Constantinos K. Zacharis
Aristotle University of Thessaloniki, Greece
- PS-49 Cutting-edge development of an in-tip MIP-FPSE method for the ultra-selective detection of bisphenol A in urine samples analyzed by HPLC-DAD
Elli P. Pantazi¹, Abuzar Kabir², Victoria F. Samanidou¹, Natasa P. Kalogiouri¹
¹*Aristotle University of Thessaloniki, Greece*
²*Florida International University, USA*
- PS-50 Microwave-assisted extraction and derivatization methods coupled to GC×GC-FID for fatty acid methyl ester profiling: comparison with official methods
Donatella Ferrara^{1,2}, Marco Beccaria³, Chiara Cordero², Giorgia Purcaro¹
¹*University of Liège, Belgium*
²*University of Turin, Italy*
³*University of Ferrara, Italy*
- PS-51 A chromatographic study on ceramic vases from the Milejowice settlement and the Domasław cemetery
Angelina Rosiak, Anna Józefowska, Joanna Sekulska-Nalewajko, Jarosław Gocławski, Joanna Kałużna-Czaplińska
Lodz University of Technology, Poland
- PS-52 Spectrometry for everyone: Accessibility for individuals with visual impairments/blindness using audio-tactile pictures
Natalia Manousi^{1,2}, Natasa P. Kalogiouri¹, Lisander Isaraj³, Elena Chronopoulou⁴, Konstantinos S. Papadopoulos³, Victoria Samanidou¹
¹*Aristotle University of Thessaloniki, Greece*
²*TU Wien, Austria*
³*University of Macedonia, Greece*
⁴*National and Kapodistrian University of Athens, Greece*
- PS-53 Molecularly imprinted membrane extraction combined with HPLC for selective analysis of biologically active substances in cosmetics
Andrea Špačková, Barbora Kučíková, Katarína Hroboňová
Slovak University of Technology, Slovakia
- PS-54 Introduction of pulsed – post column derivatization coupled to high performance liquid chromatography: development and applications in analytical chemistry
Apostolia Tsiasioti, Constantinos K. Zacharis, Paraskevas D. Tzanavaras
Aristotle University of Thessaloniki, Greece

- PS-55 Simultaneous detection and quantification of organic acids and furans in lignocellulosic biomasses hydrolysate
Patrizia Casella¹, Raffaele Loffredo², Maria. A. Rao², Federico Liuzzi¹, Isabella De Bari¹, Antonio Molino¹
¹*ENEA, Italy*
²*University of Naples, Italy*
- PS-56 Ionic liquids extraction of nucleic acids in complex matrices for detection by loop-mediated isothermal amplification
Emanuela Trovato¹, Danilo Donnarumma¹, Domenica Mangraviti¹, Giuseppe Arcoleo², Giulia Casini², Cosimo Manzo², Paola Dugo^{1,3}, Luigi Mondello^{1,3}
¹*University of Messina, Italy*
²*Enbiotech s.r.l., Italy*
³*Chromaleont s.r.l., Italy*
- PS-57 Targeted ultra-high performance liquid chromatography-tandem mass spectrometry assay for the quantification of medium-chain phosphatidylcholines in platelets of coronary artery disease patients
Philipp Seyfried¹, Tamara Janker¹, Adrian Brun¹, Adrian Sievers-Engler¹, Kristina Dittrich¹, Meinrad Gawaz², Michael Lämmerhofer²
¹*University of Tübingen, Germany*
²*Eberhard Karls University Tübingen, Germany*
- PS-58 Development of innovative analytical strategies for the identification of new psychoactive substances
Gianmarco Pezzuti¹, Ilenia Bracaglia¹, Martina Croce¹, Gaia Di Francesco¹, Francesco Bartolini¹, S. Gamberoni¹, Camilla Montesano¹, Antonietta Lombardozi², S. Detti², Sabino Napoletano², Manuel Sergi¹
¹*University La Sapienza, Italy*
²*Forensic Science Police Service (DAC-SPS), Italy*
- PS-59 Possible over-estimation of MOAH content in lip care sticks using LC-GC-FID method
Marie Vaccaro¹, Clément De Saint Jores², Juliette Gouley¹, Pascal Cardinael¹
¹*University of Rouen, France*
²*University of Orleans, France*
- PS-60 Predicting chromatographic behavior using HPLC new crown ether based stationary phase: a comparative study of machine learning and deep learning algorithms
Belaid Warda-Fella, Ferroukhi Ouassila, Azeddine Dekhira
Faculty of Chemistry, Algeria
- PS-61 Study of chemical forms of selenium in vegetables
Magdalena Michalska-Kacymirow, Eliza Kurek, Ewa Bulska
University of Warsaw, Poland

PS-62 The effect of various washing methods on pesticide residues, toxic and essential elements removal in rice
Khulood K. Alnabati, Dalal Alqahtani, Mohammed A. Almutairi, Rakan Alajami, Tagreed Alsaleem, Sara Almanna, Abdullah M. Alowaifeer
Saudi Food & Drug Authority (SFDA), Saudi Arabia

- PS-63 Continuous online analysis of nitric acid and nitrates in ambient air
Lukas Alexa¹, Dorota Cmelikova², Hana Cigankova¹, Pavel Mikuska¹
¹*Czech Academy of Sciences, Czech Republic*
²*University of Technology, Czech Republic*
- PS-64 Effect of advanced oxidation process on pesticide removal and toxicity
Bruna Babić Visković, Annetta Peršić, Dora Lastovčić, Davor Dolar, Danijela Ašperger
University of Zagreb, Croatia
- PS-65 Study on cannabinoids in *Cannabis sativa* L. samples with the use of GC-TOFMS
Katarzyna Idzikowska, Angelina Rosiak, Paulina Gałtarek, Joanna Kałużna-Czaplińska
Lodz University of Technology, Poland
- PS-66 MS/MS determination of free carnitine in urine for differential diagnosis of primary carnitine deficiency
Róbert Góra¹, Renáta Górová¹, Helena Jurdáková¹, Anna Šalingová², Vladimír Bzdúch²
¹*Comenius University of Bratislava, Slovakia*
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- PS-67 Greener method proposal for the determination of phenolic compounds and coumarin in food using green solvents in the UAE/MAE-HPLC-DAD system
Petra Lišková, Katarína Hroboňová
Slovak University of Technology in Bratislava, Slovakia
- PS-68 Development of large-volume SPE device for surface water sampling and GC-MS methods for determination of selected priority substances
Krištof Urban, Nemanja Koljančić, Ivan Špánik
Slovak University of Technology in Bratislava, Slovakia
- PS-69 Investigation of the effect of exposure to lead oxide nanoparticles on cells and mice lung tissue and changes in lipid profile
Markéta Laštovičková, Daniela Kristeková, Pavel Coufalík, Jana Dumková, Marcela Buchtová, Pavel Mikuška
Czech Academy of Sciences, Czech Republic
- PS-70 Development of a capsule phase microextraction protocol based on ionic-liquid/Carbowax 20M functionalized platforms for the determination of phosphodiesterase-5 inhibitors in human serum and urine
Natalia Manousi^{1,2,3}, Abuzar Kabir⁴, Kenneth G. Furton⁴, Constantinos K. Zacharis¹
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⁴*Florida International University, USA*

- PS-71 Assessing the health of the marine environment by studying trace elements in the seas and oceans
Giorgia Mattei, Clara Sette, Luca Lucentini, Andrea Piccioli, Sea Care Team, Enrico Veschetti
Italian National Institute of Health, Italy
- PS-72 Determination of heavy metals in plastic samples by green direct ultrasonic slurry sampling in combination with atomic absorption spectrometry
Nicolas Milan Michalides, Katarína Chovancová, Martina Končálová, Radoslav Halko
Comenius University Bratislava, Slovakia
- PS-73 Selection of passive sampler phases for monitoring of pharmacologically active dyes in surface waters
Kamila Mitrowska, Katarzyna Sielska
National Veterinary Research Institute (PIWet), Poland
- PS-74 Green analytical techniques and materials for assessing coconut oil quality and authenticity by subcritical fluid chromatography
Alice Mondello¹, Antonella Satira¹, Paola Donato¹, Francesca Rigano¹, Emanuela Trovato¹, Ivana Bonaccorsi¹, Luigi Mondello^{1,2}
¹*University of Messina, Italy*
²*Chromaleont s.r.l., Messina, Italy*
- PS-75 Portable liquid chromatography – an attractive tool for fast on-site analyses
Dana Moravcová¹, Jozef Šesták¹, Zuzana Gogaľová¹, Kamila Lunerová²
¹*Czech Academy of Sciences, Czech Republic*
²*National Institute for Nuclear, Biological and Chemical Protection, Czech Republic*
- PS-76 Distinction between *Salvia hispanica* L. varieties through genome size, ploidy level, cytoplasm acid phase and rosmarinic acid production *in vivo* and *in vitro*, with or without yeast extract or cadmium chloride elicitation
Sara Motyka¹, Agnieszka Szopa¹, Sergio J. Ochatt²
¹*Jagiellonian University, Poland*
²*University of Bourgogne Franche-Comté, France*
- PS-77 Method development for analysis of occurrence of alkylphenols in offshore seawater: the main challenges
Anna Muratore¹, Lorenza Notargiacomo¹, Elisa Montanari², Luca Lucentini¹, Andrea Piccioli¹, Sea Care Team, Fulvio Ferrara¹
¹*National Institute of Health, Italy*
²*Regional Agency for Prevention, Environment and Energy of Emilia-Romagna, Italy*

- PS-78 A green liquid phase microextraction using phthalic acid as switchable hydrophilicity solvent for the HPLC determination of sildenafil in human urine
Marianna Ntorkou¹, Antigoni Doumtsi¹, Styliani Solomou¹, Breixo A. Gontad^{1,2}, Paraskevas D. Tzanavaras¹, Constantinos K. Zacharis¹
¹*Aristotle University of Thessaloniki, Greece*
²*University of Santiago de Compostela, Spain*
- PS-79 Unravelling the sources of incorrect lactoferrin quantification by HPLC-DAD in milk
 Oleksandra Pryshchepa, Jagoda Pałczyńska, Justyna Walczak-Skierska, Aleksandra Radtke, Paweł Pomastowski
Nicolaus Copernicus University, Poland
- PS-80 Development and validation of a dual molecular imprinted polymer fabric phase extraction method for the selective determination of sulfathiazole in environmental waters analyzed by HPLC-DAD
Elli P. Pantazi¹, Despoina Kantidou¹, Abuzar Kabir², Victoria F. Samanidou¹, Natasa P. Kalogiouri¹
¹*Aristotle University of Thessaloniki, Greece*
²*Florida International University, USA*
- PS-81 Determination of lamotrigine unbound fraction using ultrafiltration and validated LC-MS method
Marta Pelcová, Vikória Ďurčová, Ondřej Peš, Zdeněk Glatz, Jan Juřica
Masaryk University, Czech Republic
- PS-82 Monitoring gas phase poly and per fluoroalkyl substances in the environment and from sources
Daniela Peroni¹, Hannah Calder², Massimo Santoro²
¹*SRA Instruments S.p.a., Italy*
²*Markes International Ltd., United Kingdom*
- PS-83 Use of polyhedral oligomeric silsesquioxane for fabrication of monolithic columns of different polarities and diameters
Josef Planeta, Dana Moravcová, Pavel Karásek, Michal Roth
Czech Academy of Sciences, Czech Republic
- PS-84 Synergic profiling of virgin olive oil by coupling vacuum-assisted and multi-cumulative trapping headspace followed by GC×GC-MS
Giorgia Purcaro, Steven Mascrez
University of Liège, Belgium

- PS-85 MAVERIC: development of Miniaturized Autonomous and VERsatlle gas Chromatograph for VOC monitoring using nano-gravimetric-detector based on NEMS resonator array.
Malak Rizk-Bigourd¹, Cécile Gaimoz², Eric Colinet³, Jean-Pierre Pineau¹, Vincent Guerreni¹, Vivien Tranier¹, Fabrice Bertrand¹, David Coscia¹, Anaïs Feron⁴, Michel Cabane¹, Cyril Szopa¹, Patrice Coll⁴, Agnès Borbon⁵, François Ravetta¹
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⁵Université Clermont Auvergne, France
- PS-86 Interstitial fluids sampling for contaminants exposure. A preliminary evaluation
Gregg Roelofs, Ivan Aloisi
 Wageningen University & Research, The Netherlands
- PS-87 Terpenes – non-cannabinoid compounds identified in cannabis vapours
 Katarzyna Idzikowska, Angelina Rosiak, Joanna Kałużna-Czaplińska
 Lodz University of Technology, Poland
- PS-88 Creation of a solid deposition GC-FTIR library for hydrocarbon isomers identification
Tania M. G. Salerno¹, Carmelo Coppolino¹, Daniele Giuffrida¹, Paola Donato¹, Luigi Mondello^{1,2}
¹University of Messina, Italy
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- PS-89 Chiral HPLC method for investigation of chiral impurities in moxifloxacin active pharmaceutical substance
 Alma Salkić^{1,2}, Mira Zečević³, Biljana Otašević³
¹ZADA Pharmaceuticals d.o.o., Bosnia and Herzegovina
²University of Tuzla, Bosnia and Herzegovina
³University of Belgrade, Serbia
- PS-90 Differentiation of *Cutibacterium acnes* phylotypes by CE utilizing nano-etched fused silica capillary
Jiří Šalplachta¹, Pavel Karásek¹, Filip Růžička², Anna Kubesová¹, Michal Roth¹
¹Institute of Analytical Chemistry of the CAS, Czech Republic
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- PS-91 Development and validation of a magnet integrated fabric phase sorptive extraction (MI-FPSE) method for the selective determination of seven sulfonamides in human urine analyzed by HPLC-DAD
 Natasa P. Kalogiouri¹, Glykeria N. Tsompanopoulou¹, Abuzar Kabir², Kenneth Furton², Victoria F. Samanidou¹
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²Florida International University, Miami, USA

- PS-92 A sustainable analytical approach for detecting extra virgin olive oil adulteration using subcritical fluid chromatography with UV detection
Antonella Satira¹, Alice Mondello², Paola Donato¹, Francesca Rigano¹, Emanuela Trovato¹, Ivana Bonaccorsi¹, Luigi Mondello^{1,2}
¹*University of Messina, Italy*
²*Chromaleont s.r.l., Italy*
- PS-93 Enantioseparation of synthetic cathinones by isocratic HPLC-UV using a Lux® i-Amylose-3 column
Elisabeth Seibert, Katharina Götz, Olaf Kunert, Martin G. Schmid
University of Graz, Austria
- PS-94 Insight on chemical composition and bioactivity profiles of bee pollen samples botanically sourced from chestnut, willow, and oak
Nisa Beril Sen¹, Irena Vovk², Hasan Kırmızıbekmez¹, Etil Guzelmeric¹
¹*Yeditepe University, Türkiye*
²*National Institute of Chemistry, Slovenia*
- PS-95 The role of MALDI-MS in detection of changes in urine microbiome during radiotherapy
Ewelina Sibińska¹, Michał Złoch¹, Fernanda Monedeiro¹, Wioletta Mišta², Adrian Arendowski¹, Piotr Fijałkowski¹, Monika Pietrowska², Jolanta Mrochem-Kwarciak², Anna Jędrzejewska², Ewa Telka², Kinga Karoń², Małgorzata Rabsztyn², Dorota Gabryś², Paweł Pomastowski¹
¹*Nicolaus Copernicus University in Toruń, Poland*
²*Maria Skłodowska-Curie National Research Institute of Oncology, Poland*
- PS-96 Analyzing drug-liposome interactions by capillary electrophoresis
Alice Šimonová^{1,2}, Tomáš Křížek¹
¹*Charles University, Czech Republic*
²*Zentiva k.s., Czech Republic*
- PS-97 Wildlife crimes. Poisoning by banned pesticide carbofuran through Czech Republic – investigating the chemical impurity profiles of different carbofuran preparations as a part of forensic analysis
Zdena Škrob¹, Klára Hlubocká², Tomáš Cajthaml¹
¹*Charles University, Czech Republic*
²*Czech Ornithological Society, Czech Republic*
- PS-98 Capillary electrophoresis and isotachopheresis applied for analysis and characterization of peptides regulating food intake
Veronika Šolínová, Adéla Křížková, Lenka Maletínská, Václav Kašička
Czech Academy of Sciences, Czech Republic
- PS-99 Three formats, one template: enantioselective performance of molecularly imprinted polymers for extraction of D-panthenol
Andrea Špačková, Barbora Kučíková, Sandra Solčianska-Schwarz, Katarína Hroboňová
Slovak University of Technology in Bratislava, Slovakia

- PS-100 Elevating metabolomic profiling: integrating advanced chromatography and high-resolution mass spectrometry for comprehensive biomarker discovery in clinical studies
Matteo Spedicato¹, Felina Hildebrand², Alberto Cavazzini¹, Martina Catani¹, Gunda Koellensperger²
¹*University of Ferrara, Italy*
²*University of Vienna, Austria*
- PS-101 Electrophoretic analysis of goat milk powder enriched with grape pomace seed and mushroom extracts
Sladana P. Stanojević, Danijel D. Milinčić, Jovana Petrović, Ivana Sredović-Ignjatović, Ana Plečić, Aleksandar Ž. Kostić, Ana Doroški, Mirjana B. Pešić
University of Belgrade, Serbia
- PS-102 Affinity capillary electrophoresis applied for the separation of cyclic diadenosine diphosphorothioate and the diastereomers of its difluorinated derivative and investigation of their interactions with 2-hydroxypropyl- β -cyclodextrin
Sille Štěpánová, Petra Břehová, Václav Kašička
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- PS-103 Comparative HPTLC study of fermented and non-fermented smoke tree extract
Ivana Stojiljković¹, Marko Jović¹, Đurđa Ivković¹, Snežana Agatonović-Kustrin^{2,3}, David Morton^{2,3}
¹*University of Belgrade, Serbia*
²*Sechenov University, Russia*
³*La Trobe University, Australia*
- PS-104 Application of matrix-solid phase dispersion and molecular imprinted polymer as extraction techniques for environmental samples polluted by pharmaceuticals
Kristina Tolić Čop, Dragana Mutavdžić Pavlović, Karla Petek
University of Zagreb, Croatia
- PS-105 Effect of ternary mobile phase composition on the retention of polar substances in HILIC
Barbora Tošovská, Sára Mrvková, Petr Česla
University of Pardubice, Czech Republic
- PS-106 Astaxanthin extraction from *Paracoccus carotinifaciens* biomass by an ultrasound assisted deep eutectic solvent-based approach
Alessia Tropea¹, Angie Vanessa Caicedo Paz², Cassamo Ussemame Mussagy², Francesca Rigano¹, Daniele Giuffrida¹, Laurent Dufossé³, Luigi Mondello^{1,4}
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- PS-107 Investigation of sensitizing molecules in hand hygiene gel products by hyphenated chromatography techniques
Emanuela Trovato¹, Tania M. G. Salerno¹, Giovanna Cafeo¹, Federica Vento¹, Mariosimone Zoccali¹, Paola Donato¹, Paola Dugo^{1,2}, Luigi Mondello^{1,2}
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- PS-108 High performance liquid chromatography coupled to zone fluidics: a new concept to introduce different reagents in post-column derivatization
Apostolia Tsiasioti, Constantinos K. Zacharis, Paraskevas D. Tzanavaras
Aristotle University of Thessaloniki, Greece
- PS-109 Microdialysis of microliter volumes of body fluids performed on hollow fiber for monitoring of amino acids by capillary electrophoresis
Petr Tůma
Charles University, Czech Republic
- PS-110 Cross-validation of a solid-phase extraction and a dispersive liquid-liquid microextraction method for therapeutic drug monitoring of breast cancer drugs
Lu Turković¹, Zvonimir Mlinarić¹, Tajana Silovski^{1,2}, Andrijana Ščavničar², Biljana Nigović¹, Miranda Sertić¹
¹*University of Zagreb, Croatia*
²*University Hospital Centre Zagreb, Croatia*
- PS-111 Determination of vitamin D level in biological fluids by using gas chromatography technique coupled to triple quadrupole mass spectrometry
Federica Vento¹, Giuseppe Micalizzi¹, Tania M.G. Salerno¹, Emanuela Trovato¹, Luigi Mondello^{1,2}
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- PS-112 Ellagitannin profile in dried walnut shells using liquid chromatography-tandem mass spectrometry
Giovanni Ventura¹, Cosima D. Calvano¹, Giuliana Bianco², Angela Di Capua², Ilario Losito¹, Tommaso Cataldi¹
¹*University of Bari Aldo Moro, Italy*
²*University of Basilicata, Italy*
- PS-113 Separation of chromium species in biological fluids by μ LC-ICP-MS
Jelle Verdonck¹, Katrien Poels¹, Jeroen Vanoirbeek¹, Radu Corneliu Duca^{1,2}, Lode Godderis^{1,3}, Erik Smolders¹
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²*Laboratoire National de Santé (LNS), Luxembourg*
³*IDewe, External Service for Prevention and Protection at Work, Belgium*
- PS-114 Determination of selected pharmaceuticals and their metabolites in wastewater and treated water samples
Nicolette Viktorová, Lucia Vnuková, Agneša Szarka
Slovak University of Technology, Slovakia

- PS-115 LC-MS investigation of the electrochemical degradation of environmentally relevant pharmaceuticals and their degradation products in water
Andrea Vojs Staňová^{1,2}, Lucia Hojová¹, Marián Marton³, Marian Vojs³, Tomáš Homola³, Roman Grabic², Tomáš Mackuľak³
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²*University of South Bohemia in Ceske Budejovice, Czech Republic*
³*Slovak University of Technology in Bratislava, Slovakia*
- PS-116 LC-MS/MS chemoproteomic preliminary study to characterize effect of hydroxynaphthalene-carboxanilides against *Staphylococci*
Lucia Vrablova¹, Jan Gebauer², Tomas Gonec³, Dominika Pindjakova¹, Alois Cizek⁴, Josef Jampilek¹
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³*Masaryk University, Czech Republic*
⁴*University of Veterinary Sciences Brno, Czech Republic*
- PS-117 Application of SPME Arrow technique for analysis of botrytized wines
Olga Vyviurska, Vivien Királyová, Ivan Špánik
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- PS-118 Detection of hemoglobin by capillary electrophoresis and FTIR spectroscopy
Julia Werle¹, Jakub Podhajsky¹, Arli Aditya Parikesit², Karel Kotaska¹, Richard Prusa¹, Egon Werle³, Rene Kizek¹
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³*Heidelberg University Hospital, Germany*
- PS-119 Benzo(a)pyrene concentration in river water in Poland
Kinga Wieczorek
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- PS-120 S-scheme BC/CoFe₂O₄/Fe₂O₃ photocatalyst for activation of peroxymonosulfate towards degradation of tetracycline
Ye Yang^{1,2}, Shengdao Shan², Xiaofeng Shen², Mihail-Simion Beldean-Galea¹
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²*Zhejiang University of Science and Technology, China*
- PS-121 Detailed lipid investigation of edible seaweeds by photochemical derivatization and untargeted lipidomics
Anna Laura Capriotti, Sara Elsa Aita, Andrea Cerrato, Carmela Maria Montone, Enrico Taglioni, Aldo Laganà
University of Rome La Sapienza, Italy

- PS-122 Pyrolysis-gas chromatography-mass spectrometry for qualification of microplastics in foods
Cristina Di Fiore¹, Fabiana Carriera¹, Alessia Iannone¹, Enrico Paris², Francesco Gallucci², Pasquale Avino^{1,3}
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²*Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria, Italy*
³*Institute of Atmospheric Pollution Research, Italy*
- PS-123 Dairy analogues in the Algerian market: proportion and substitute fat quality
Saïda Bentayeb Ait Lounis, Zahia Cheref, Thiziri Cherifi, Kahina Bahmed, Kahina Hallali, Yasmine Abdellaoui, Kenza Adli
Université Mouloud Mammeri de Tizi-Ouzou, Algeria