44th International Symposium on Capillary Chromatography and 21st GC×GC Symposium

Chairman
Prof. L. Mondello

17 - 22 May, 2026

Palazzo dei Congressi,
Riva del Garda
Italy

PROGRAM

INFORMATION

Chromaleont
Tel. (+39)-334-3612788
E-mail: iscc@chromaleont.it

The Forum on Microcolumn Separations

THE '44th INTERNATIONAL SYMPOSIUM ON CAPILLARY CHROMATOGRAPHY'

and

THE '21st GC×GC SYMPOSIUM'

May 17 – 22, 2026

Riva del Garda Fierecongressi, Riva del Garda, Italy

The 'M.J.E. Golay Award 2026'

The 'ASAC Fritz Pregl Medal 2026'

The 'Giorgio Nota Award 2026'

The 'GCxGC Lifetime Achievement Award 2026'

The 'John Phillips Award 2026'

The 'Genzo Shimadzu Best Oral Award 2026'

The 'Separations MDPI Best Oral Award 2026: Young Scientist'

The 'Molecules MDPI Best Oral Award 2026: Young Scientist'

The 'Richard Sacks Best Poster Award 2026'

The 'ABC Springer Best Poster Award 2026: Young Scientist'

The 'Analytical Methods RSC Best Poster Award 2026: Young Scientist'

The 'Green Analytical Chemistry Elsevier Best Poster Award'

will be presented

- Conference Address -

Riva del Garda Fierecongressi Parco Lido I-38066 Riva del Garda, (TN) Italy	Tel.: E-mail: Web: http://www.rivadelgardafierecongressi.it	+39-0464-520000 (Info Desk) info@rivafc.it

- Symposium Office -

The Symposium Office is located in the entrance hall of the Congress Center.

Opening Hours:

Sunday, May 17	09:00 until 18:00	GC×GC and LC×LC Courses
	09:00 until 18:00	21st GC×GC Symposium
Monday, May 18	08:30 until 18:50	21st GC×GC Symposium
Tuesday, May 19	09:00 until 18:35	44th ISCC
	11:05 until 18:50	21st GC×GC Symposium
Wednesday, May 20	09:00 until 18:20	44th ISCC
Thursday, May 21		
Friday, 22 May	09:00 until 13:15	44th ISCC

- Posters -

Posters will not be introduced by oral presentation.
For the **44th ISCC**, the posters will be shown from **Tuesday to Friday (8:30 till 11:00)**.

For the **21st GC×GC**, the posters will be shown from **Monday to Friday (8:30 till 11:00)**.

For discussion, please meet the authors at their numbered poster board at the time indicated in the scientific program.
Special stickers to hang up the posters are available at the Registration Desk. The use of pins is not allowed.

- Submission of Manuscripts -

Participants are invited to contribute manuscripts connected to their presented work at the RIVA 2026 Conference for possible publication in either the Journal of Chromatography A with the intention of eventual publication in a Virtual Special Issue (VSI) that is dedicated to the meeting.
Conference papers will appear together as part of a dedicated collection on Science Direct.
Authors are advised to read carefully the aims and scope of the journal before deciding whether or not to submit their manuscript.

Manuscript submission instructions:

- Submission link: https://www.sciencedirect.com/journal/journal-of-chromatography-a
- Click on the “Submit your article” from the top menu;
- Enter your username and password (first time users will need to register);
- After accepting Elsevier's terms and conditions, privacy policy and the Aries privacy policy, please click on “Start a new submission” and select article type “VSI: RIVA 2026”;
- Follow the remaining step-by-step instructions to submit your paper.
- Submission Open Date: **1st May 2026**
- Submission deadline **30th November 2026**.

When preparing your manuscript(s), please carefully follow the Guide to Authors of the journal, which you can find on the online submission site. In the cover letter please mention that your manuscript is intended for the **RIVA 2026** Virtual Special Issue.
Please note that all manuscripts will be subjected to the mandatory selection process for the journal selected, including the strict peer review procedure; therefore, acceptance for presentation at the meeting is not a guarantee for publication in the journal.
For any queries regarding the VSI publication, please contact Mr. Wei Yu by wei.yu@elsevier.com. We would like to thank you in advance for your contribution.

The special issue will be handled by guest editors Paola Dugo and Robert Synovec.

Book of Abstracts

The book of abstracts will be delivered on a USB upon registration

- Badges -

Delegates are requested to wear their badges at all times.
Failure to do so will result in refusal of admission to the scientific and social activities.
Blue badges have access to both GC×GC and ISCC Scientific Program. Green badges have access to the Scientific Program of GC×GC and light blue badges to the Scientific Program of ISCC. Participants registered to the GC×GC and LC×LC short courses will receive an additional badge valid only for Sunday MAY 17, 2026. Accompanying persons have no access to the scientific activities.

- Coffee Breaks–

Coffee and soft drinks will be served in the exhibition hall during the coffee break times only.

- Exhibition -

Exhibition opening hours:

Tuesday, May 19	09:00 – 18:50
Wednesday, May 20	09:00 – 18:20
Thursday, May 21	09:00 – 18:25
Friday, May 22	09:00 – 11:00

Exhibiting Companies

ACKISION	LNI SWISSGAS
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IonBench	SPECTRA ANALYSIS
JEOL	SRA INSTRUMENTS
LABOTEC	TELETHON
LabTech	VUV ANALYTICS
LECO	Waters

- Social Program -

The following program is offered to the delegates:

All Days		Coffee Breaks offered by the Diamond Sponsor Shimadzu Europa GmbH
Sunday, May 17	18:30	Short Courses Cocktail offered by Shimadzu Europa GmbH Location: First floor Congress Centre
Monday, May 18	19:00	Welcome Reception Cocktail offered by Chromaleont, RIC Group and Spectra Analysis Location: Exhibition Hall
Tuesday, May 19	19:00	Cocktail offered PeakScientific Location: Pala Vela Exhibition Hall
Wednesday, May 20	19:00	Wine and Cheese offered by Chromaleont, RIC Group and Spectra Analysis Location: Terrace Hotel Sole, Riva del Garda
Friday, May 22	13:00	Farewell Cocktail offered by Waters Location: Congress Centre

- Company Dinners -

Thursday, May 19	19:30	Invited Speaker Dinner offered by Shimadzu Europa GmbH Location: Hotel Liberty Please bring your invitation card

- COMMITTEE MEMBERS -

- Scientific Committee 44th ISCC -

Bicchi Carlo	(Italy)
Desmet Gert	(Belgium)
Huber Christian	(Austria)
Janssen Hans-Gerd	(Netherlands)
Kennedy Robert	(USA)
Lanças Fernando	(Brasil)
Lee Milton	(USA)
Marcé Rosa Maria	(Spain)
Luong Jim	(USA)
Mondello Luigi	(Italy)
Pawliszyn Janusz	(Canada)
Pichon Valérie	(France)
Psillakis Elia	(Greece)
Ramsey Michael	(USA)
Sandra Koen	(Belgium)
Schmitz Oliver	(Germany)
Schug Kevin	(USA)
Stashenko Elena	(Colombia)
Xu Guowang	(China)

- Organizing Committee 44th ISCC -

Cappiello Achille	(Italy)
Cavazzini Alberto	(Italy)
Donato Paola	(Italy)
Dugo Paola	(Italy)
Gomes da Silva Marco	(Portugal)
Rigano Francesca	(Italy)
Zoccali Mariosimone	(Italy) (Chair)

- Honorary Committee 44th ISCC -

Sandra Pat	(Belgium) *Honorary Chairman*
Armstrong Daniel	(USA)
Fanali Salvatore	(Italy)
Jinno Kiyokatsu	(Japan)
Jorgenson Jim	(USA)
Myers Peter	(USA)
Novotny Milos	(USA)
Svec Frantisek	(Czech Republic)
Trestianu Sorin	(Italy)

- Scientific Committee 21st GC×GC -

Bean Heather	(USA)
Cordero Chiara	(Italy)
Dorman Frank	(USA)
Focant Jef	(Belgium)
Górecki Tadeusz	Canada)
Hantao Leandro Wang	(Brazil)
Harynuk James	Canada)
Ieda Teruyo	(Japan)
Janssen Hans-Gerd	(Netherlands)
Marriott Phil	(Australia)
Mondello Luigi	(Italy)
Purcaro Giorgia	(Belgium)
Synovec Rob	(USA)
Tranchida Peter	(Italy)

- Organizing Committee 21st GC×GC -

Ferracane Antonio (Italy)
Galletta Micaela (Italy)
Zoccali Mariosimone (Italy) (Chair)

- CHAIRMAN AND HONORARY CHAIRMAN -

Luigi Mondello
Messina Institute of Technology c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale G. Palatucci 13, 98168 – Messina, Italy
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- LOCAL ORGANIZATION -

Margherita Barilà (margherita.barila@chromaleont.it)
Elisa Giglio (elisa.giglio@chromaleont.it)
Tel.: +39-334-3612788

Chromaleont S.r.l.
c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale G. Palatucci 13, 98168 – Messina, Italy

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EuChemS - Division of Analytical Chemistry
Food Chemistry Division of the Italian Chemical Society
Thematic Group on Separation Science of the Italian Chemical Society

AWARDS

MARCEL GOLAY AWARD

The **Marcel Golay award** was instituted in honor of Marcel Jules Eduard Golay, the inventor of capillary columns.

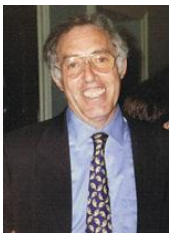
Dr. Golay, one of the **pioneers of gas chromatography**, introduced the theory of dispersion in open tubular columns (capillary columns) and demonstrated their efficacy at the second International Symposium on Gas Chromatography in 1958. Dr. Golay joined PerkinElmer in 1962 as a senior scientist, and invented the Golay infrared sensor, which at the time was the most sensitive infrared sensor available.

Golay's invention helped establish PerkinElmer as a major source of infrared technology. He also extended the theory of preparative columns and examined the properties of various chromatography sampling systems. The open tubular gas chromatography column is the most popular analytical gas chromatography column in use today. Dr. Golay worked as a senior scientist at PerkinElmer up until his death in 1989. The Marcel Golay award is presented to a scientist in recognition of a lifetime of achievement in capillary chromatography.

Carlo Bicchi is Full Professor at the Faculty of Pharmacy of the University of Turin since 1990. His research focuses on the development of advanced analytical technologies for the study of biologically active specialized metabolites in plant matrices, including essential oils, terpenoids, phenolic compounds, and alkaloids, as well as on aroma profiling and fingerprinting of major industrial food crops such as coffee, cocoa, hazelnuts, olive oil, and tea. His work encompasses all aspects of sample preparation, advanced chromatographic techniques, and chemometric methods for profiling and fingerprinting. Prof. Bicchi has actively promoted the development of analytical sciences through international collaboration, mentoring, and participation in scientific boards, conferences, and editorial activities.

GIORGIO NOTA AWARD

The **Giorgio Nota Award** was instituted in honor of Giorgio Nota, who first introduced open tubular LC.
The Giorgio Nota award is presented to a scientist in recognition of a lifetime of achievement in capillary liquid chromatography.
The **Giorgio Nota Award 2026** is sponsored by **Waters**.



Fernando Mauro Lanças is a full Professor at the Institute of Chemistry of the University of São Paulo at São Carlos, Brazil, where he founded and currently coordinates the Chromatography Laboratory. His commitment to promoting and disseminating the culture of chromatography in Latin America, as founder of the Latin American Congress of Chromatography (COLACRO), the Brazilian Symposium on Chromatography (SIMCRO), and the International Institute of Chromatography (IIC), has made it possible to build a lasting bridge between Latin America and the rest of the world, fostering scientific collaboration, advancing research excellence, and strengthening the global chromatographic community. His primary research interest is currently focused on the complete miniaturization and automation of sustainable sample preparation – chromatography – mass spectrometry techniques and the practical implementation of the Unified Chromatography concept.

GC×GC LIFETIME ACHIEVEMENT AWARD

The award honors an experienced GC×GC scientist who has made significant contributions to the field.
The Scientific Achievement Award was instituted in 2011 and recognizes GC×GC scientists who have 15 or more years of continuous contributions in the field.
The **2026 GC×GC Lifetime Achievement Award** is sponsored by **SepSolve Analytical, Markes International and LECO**.

Prof. James Harynuk is currently a Full Professor at the University of Alberta, Canada. His research focuses on developing advanced analytical tools to tackle challenges such as complex samples, faster analysis times, and lower detection limits. He specializes in multidimensional gas-phase separations, including GC×GC, heart-cut GC (GC-GC), and advanced data handling tools. Applications of his work span health research, metabolite profiling, forensic science, petrochemicals, and environmental science.

Christopher Reddy is senior scientist at the Department of Marine Chemistry and Geochemistry at the Woods Hole Oceanographic Institution in Woods Hole, Massachusetts. Reddy received his B.S. degree in chemistry from Rhode Island College and his Ph.D. in chemical oceanography from the Graduate School of Oceanography at the University of Rhode Island. His research focuses on the environmental fate of organic pollutants in the ocean, often using advanced analytical techniques such as GC×GC and compound-specific isotope analysis. Drawing on lessons from past pollution, he works to design safer, more environmentally friendly materials.

Robert K. Nelson is an organic geochemist invece di research specialist in the Department of Marine Chemistry & Geochemistry at the Woods Hole Oceanographic Institution in Woods Hole, Massachusetts. He earned a B.A. in biology from Central Connecticut State University and he later expanded his scientific training through additional coursework in organic chemistry at the University of Massachusetts Dartmouth and in physical chemistry at Northeastern University, strengthening his expertise in chemistry as applied to environmental sciences. With an extensive career in organic geochemistry and environmental analysis, Nelson is widely recognized for his contributions to the study of petroleum hydrocarbons and anthropogenic contaminants in the marine environment.

JOHN PHILLIPS AWARD

Comprehensive two-dimensional gas chromatograpy, or GC×GC, was invented by the late **Professor John Bruce Phillips** of Southern Illinois University at Carbondale and his then graduate student, Dr. Zaiyou Liu. The Phillips Prize will be awarded every other year to individuals who have made outstanding contributions to the field of GC×GC analysis. The Phillips Award first given in 2004 recognizes individuals who have typically worked in the GC×GC field for less than 10 years but have demonstrated good leadership through their scientific peer-reviewed work.

Dr. Meriem Gaida obtained Ph.D. in Analytical Chemistry from the University of Liège (Belgium) in August 2023, specializing in separation science with expertise in GC×GC-ToFMS. Her research focused on advanced analytical strategies for complex chemical profiling and data interpretation, and she further expanded her expertise as a visiting researcher at the University of Washington (USA). After completing her doctorate, she joined SepSolve Analytical Ltd. (UK) as an Applications Specialist, where she developed and optimized customized GC×GC-ToFMS solutions for industrial and academic clients, providing technical support, method development, and training. In September 2024, she moved to LUZI AG (Switzerland), where she currently serves as Product Safety Science Manager, overseeing regulatory compliance, safety assessments of fragrance ingredients, and product safety documentation in line with European regulations.

Petr Vozka is an Associate Professor of Chemistry and Biochemistry at California State University, Los Angeles, where he directs the Complex Chemical Composition Analysis Laboratory (C3AL). He earned a B.S. in Chemistry and Chemical Technologies, and an M.S. in Chemistry and Technology of Fuels and Environment from the University of Chemistry and Technology, Prague, followed by a Ph.D. from Purdue University focused on analytical chemistry of liquid transportation fuels. His research group develops and applies advanced separation and detection strategies, especially comprehensive two-dimensional gas chromatography (GC×GC) coupled with mass spectrometry, to resolve and quantify highly complex mixtures that challenge conventional methods. Application areas include alternative and sustainable fuels, microplastics and related environmental matrices, and forensic analyses such as chemical imaging of fingerprints.

Fritz Pregl Medal of the Austrian Society of Analytical Chemistry

The **Fritz Pregl award of the Austrian Society of Analytical Chemistry (ASAC)** was established in 1955. Since then, it is awarded at irregular intervals primarily at national and international scientific events and symposia.
The medal's namesake, Friedrich Michael Raimund PREGL, received the Nobel Prize in Chemistry in 1923 for his groundbreaking work in the field of microchemical methods, which are closely linked to microanalytical applications. Fritz Pregl is the doyen of Austrian analysts. In his honor, the ASAC established the Pregl Medal, which is awarded to individuals who have made significant and outstanding contributions in the field of analytical chemistry, particularly organic trace analysis.

Prof. Christian Huber is currently professor of chemistry for biosciences at the Paris Lodron University in Salzburg, Austria. After finishing his masters and Ph.D. at the university of Innsbruck he continued as an assistant professor at this university.
In 1996 Prof. Huber spent several months researching at Yale university in the group of Prof. Csaba Horvath. A year later he was appointed Associate Professor in Innsbruck. From 2002 he held the position of Professor of Analytical Chemistry at the Department of Chemistry, Division of Instrumental Analysis and Bioanalysis, Saarland University, Saarbrücken, Germany. From there he moved to Salzburg in 2008. Prof. Huber is a worldwide known researcher with a strong focus on separation sciences in particular for the analysis of large bio-molecules. According to Google Scholar his work has been cited more than 13500 times with an h-index of 63. In recognition of his contributions to HPLC and HPLC-MS, Prof. Huber will receive the Pregl Award Medal from the Austrian Society of Analytical Chemistry.

Genzo Shimadzu selected young oral lecture

Andriy Rebryk, Vrije Universiteit Amsterdam, Netherlands
Apostolia Tsiasioti, Aristotle University of Thessaloniki, Greece
Cristian Reale, University of Messina, Italy
Damien Pierret, University of Liege, Belgium
Elise Hecht, Graz University of Technology, Austria
Enrico Taglioni, Sapienza University of Rome, Italy
Ewenet Yemane Mesfin, University of Alberta, Canada
Giorgio Felizzato, University of Turin, Italy
Sandra Rodríguez Blázquez, Complutense University of Madrid, Spain
Valentin Schierer, Kompettenzzentrum Holz Gmbh, Austria

SCHOLARSHIPS

Analytical Chemistry Division of the Italian Chemical Society
Carmela Maria Montone, Sapienza University of Rome, Italy
FulviaTrapani, University of Turin, Italy
Giulia Giacoppo, University of Ferrara, Italy
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Marisa Henriques Maria, Centro De Química Estrutural, Portugal
Marta Pavarino, University of Turin, Italy
Nadine Gawlitta, Technical University of Denmark, Denmark
Yuying Feng, Deakin University, Asutralia

Comprehensive Two-Dimensional Chromatography (GC×GC and LC×LC) Courses: Introduction, Advances, and Applications

Sunday, May 17, 2026

	GC×GC COURSE
08:00 – 09:00	**On-site registration/Welcome - Room Belvedere RIVA**
09:00 – 09:45	**INTRODUCTION AND FUNDAMENTALS** *Tadeus Gorecki* *University of Waterloo, Waterloo, Canada*
09:45 – 10:30	**OPTIMIZATION** *Hans-Gerd Janssen* *Unilever, Vlaardingen, The Netherlands*
10:30 – 11:00	**Coffee Break**
11:00 – 11:45	**GC×GC Data** *James Harynuk* *University of Alberta, Alberta, Canada*
11:45 – 12:45	**APPLICATIONS** *Philip Marriott* *Monash University, Clayton, Victoria, Australia*
12:45 – 13:00	**Q/A SESSION**
13:15 – 14:15	**Lunch on your own**
	LC×LC COURSE
13:30 – 14:15	**On-site registration/Welcome - Room Belvedere RIVA**
14:15 – 14:55	**INTRODUCTION – BASIC PRINCIPLES** *Francesco Cacciola* *University of Messina, Italy*
14:55 – 15:45	**INSTRUMENTATION** *Miguel Herrero* *Institute of Food Science Research (CIAL), National Research Council (CSIC), Madrid, Spain*
15:45 – 16:10	**Coffee Break**
16:10 – 17:00	**OPTIMIZATION** *Miguel Herrero* *Institute of Food Science Research (CIAL), National Research Council (CSIC), Madrid, Spain*
17:00 – 17:30	**SELECTED APPLICATIONS: BIO/PHARMA** *Koen Sandra,* *R.I.C., Kortrijk, Belgium*
17:30 – 18:00	**SELECTED APPLICATIONS: FOOD & NATURAL PRODUCTS** *Francesco Cacciola* *University of Messina, Italy*
18:00 – 18:30	**Q/A SESSION**
18:30	**Cocktail offered by SHIMADZU Europa GmbH for the GC×GC and LC×LC Courses Participants**

SCIENTIFIC PROGRAM 21st GC×GC

Monday, May 18, 2026

08:30 – 08:45 **Opening Address 21st GC×GC - Room Garda**
Chairpersons:
Luigi Mondello
University of Messina, Italy

Philip Marriott
Monash University, Australia

08:45 – 10:50 **GC×GC Session 1 – Awards Presentation and Lectures**

08:45 – 09:00 **GC×GC Lifetime Achievement Award Presentation**
Sponsored by SepSolve Analytical, Markes International and LECO

09:00 – 09:20 **Le.01 Award Lecture**
LABRADOR VS. LABORATORY IN ARSON INVESTIGATIONS. GC×GC-TOFMS TO THE RESCUE
James Harynuk
University of Alberta, Alberta, Canada

09:20 – 09:40 **Le.02 Award Lecture**
TARGETED AND NON-TARGETED GC×GC-HRT INVESTIGATIONS OF DDT PESTICIDE MANUFACTURING WASTE PRODUCTS DUMPED OFF THE CALIFORNIA COAST
Robert K. Nelson
Woods Hole Oceanographic Institution, Woods Hole, USA

09:40 – 10:00 **Le.03 Award Lecture**
BEYOND PRETTY CHROMATOGRAMS: HOW GC×GC TRANSFORMED OIL SPILL SCIENCE
Christopher M. Reddy
Woods Hole Oceanographic Institution, Woods Hole, USA

10:00 – 10:10 **John Phillips Award Presentation**
Sponsored by LECO

10:10 – 10:30 **Le.04 Award Lecture**
GC×GC-MS: FROM METHOD DEVELOPMENT TO DATA PROCESSING, FROM ACADEMIA TO INDUSTRY: A FULL CIRCLE SCIENTIFIC JOURNEY
Meriem Gaida
Luzi AG, Zurich, Switzerland

10:30 – 10:50 **Le.05 Award Lecture**
FROM COMPLEX MIXTURES TO CLASSROOM: GC×GC MEASUREMENT SCIENCE FOR (MICRO) PLASTIC WASTE
Petr Vozka
California State University, Los Angeles, USA

10:50 – 11:20 **Coffee Break**

11:20 – 13:15

GC×GC Session 2 – FUNDAMENTALS 1
Room Garda
Chairpersons:
Robert E. Synovec, University of Washington, USA
Erwin Rosenberg, TU Wien, Austria

GC×GC Session 3 – FOOD
Room Dolomiti
Chairpersons:
Chiara Cordero, University of Turin, Italy
Peter Q. Tranchida, University of Messina, Italy

11:20

Le.06
INNOVATIONS IN GC×GC MODULATOR DESIGN WITH 3D PRINTING, AND SELECTED NOVEL APPLICATIONS
Philip Marriott[1,2]
[1]Monash University, Melbourne, Australia
[2]Universiti Sains Malaysia, Pulau Penang, Malaysia

Le.13
USING COMPREHENSIVE GCXGC TO IMPROVE THE SENSITIVITY AND TEMPORAL RESOLUTION IN FOOD FLAVOUR ANALYSIS
Hans-Gerd Janssen[1,2]
[1]Wageningen University and Research, Wageningen, The Netherlands
[2]Unilever Research, Wageningen, The Netherlands

11:40

Le.07
MODULATION IN GC×GC: A JOURNEY OVER THREE DECADES
Tadeusz Gorecki
University of Waterloo, Waterloo, Canada

Le.14
LC-GC(×GC) A POWERFUL TOOLBOX IN FOOD ANALYSIS
Giorgia Purcaro
Gembloux Agro-bio Tech, University of Liege, Gembloux, Belgium

12:00	**Le.08** **COMPREHENSIVE TWO DIMENSIONAL GAS CHROMATOGRAPHY VS MULTIPLEX GAS CHROMATOGRAPHY AKA CORRELATION CHROMATOGRAPHY – MICROBIAL VOC DETECTION AS A CASE STUDY** *Robert A. Shellie* *University of Tasmania, Launceston, Australia*	**Le.15** **COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY WITH SULFUR AND MASS SELECTIVE DETECTION FOR THE IDENTIFICATION OF ODOR ACTIVE SULFUR COMPOUNDS** *Erich Leitner* *Graz University of Technology, Institute of Analytical Chemistry and Food Chemistry, Graz, Austria*
12:15	**Le.09** **HYPERFAST COMPREHENSIVE GC: FUNDAMENTALS, EXPERIMENTAL SETUP AND MEASUREMENTS** *Peter Boeker* *University of Bonn, Bonn, Germany*	**Le.16** **CHARACTERIZATION AND QUANTIFICATION OF MINERAL OIL AROMATIC HYDROCARBONS (MOAH) BY NUMBER OF AROMATIC RINGS AND DEGREE OF ALKYLATION IN CONTAMINATED FOODS USING GC×GC-FID/MS** *Maurus Biedermann* *Official Food Control Authority of the Canton of Zurich, Zurich, Switzerland*
12:30	**Le.10** **METHOD TRANSLATION AND PERFORMANCE OF HYDROGEN CARRIER GAS FOR GC×GC** *Katelynn A. Perrault Uptmor* *William & Mary, Williamsburg, USA*	**Le.17** **GC×GC-TOFMS USE FOR THE INVESTIGATION OF CHEESE VOLATILOME COMPLEXITY** *Henryk H. Jeleń* *Poznań University of Life Sciences, Poznań, Poland*
12:45	**Le.11** **MINIATURIZATION OF COLUMNS FOR COMPREHENSIVE GC** *Pascal Cardinael* *University of Rouen Normandy, Rouen, France*	**Le.18** **A NOVEL ANALYTICAL SYSTEM FOR COMBINING ENANTIOSELECTIVE GC×GC-MS AND LOW-PRESSURE GC-MS THROUGH A SWITCHING VALVE** *Mariosimone Zoccali* *University of Messina, Messina, Italy*
13:00	**Le.12** **CHROMATOGRAPHIC FUSION: AN INTEGRATED WORKFLOW FOR GC×GC-FID/MS DATA** *Daniela Peroni* *SRA Instruments, Cernusco sul Naviglio, Italy*	**Le.19** **"PRENDIAMO UN CAFFÈ?" GCXGC-HRTOFMS ANALYSIS OF ROASTED COFFEE AROMA WITH AI-ASSISTED STRUCTURE ANALYSIS FOR UNKNOWN COMPOUNDS** *Robert B. Cody* *JEOL USA Inc., Peabody, USA*
13:15 – 14:15	**Lunch Break**	
14:15 – 16:10	**GC×GC Session 4 – ENVIRONMENTAL** **Room Garda** *Chairpersons: James Harynuk, University of Alberta, Canada* *Tadeusz Gorecki, University of Waterloo, Canada*	**GC×GC Session 5 – BIO-ANALYTICAL –ARTIFICIAL INTELLIGENCE** **Room Dolomiti** *Chairpersons:* *Philip Marriott, Monash University, Australia* *Mariosimone Zoccali, University of Messina, Italy*
14:15	**Le.20** **DETECTION OF ORGANOHALOGEN COMPOUNDS IN AN ARCHIVED SEDIMENT CORE SAMPLE OF THE JAPAN SEA USING GC×GC-HRTOFMS AND GC-HRMS** *Teruyo Ieda* *National Institute for Environmental Studies (NIES), Tsukuba, Japan*	**Le.27** **GC×GC-(HR)TOFMS VOLATILOMICS: ADVANCES IN DISEASE DIAGNOSIS** *Jean-François Focant* *University of Liège, Liège, Belgium*
14:35	**Le.21** **ADVANCING POPS ANALYSIS THROUGH UNIFIED GC×GC-MS WORKFLOWS** *Flavio A. Franchina* *University of Ferrara, Ferrara, Italy*	**Le.28** **EARLY LIFE EXPOSURE TO MICROPLASTICS AND PLASTICS ADDITIVES STUDIED BY NOVEL COMPREHENSIVE TWO- AND THREE-DIMENSIONAL SEPARATION TECHNIQUES** *Karl J. Jobst* *Memorial University of Newfoundland, St. John's, Canada*
14:50	**Le.22** **AN AUTOMATED, RAPID, IN-SITU TECHNIQUE FOR AGING AND CHEMICAL EVALUATION OF HIGH EXPLOSIVES USING GC×GC-HRMS** *Chris Freye* *Los Alamos National Laboratory, Los Alamos, USA*	**Le.29** **DEVELOPMENT OF FULL MULTI-OMICS WORKFLOWS FOR MICROBIOME SAMPLES BY GC×GC-MS** *Pierre-Hugues Stefanuto* *University of Liège, Liège, Belgium*

15:05	**Le.23** **DETERMINATION OF EMERGENING CONTAMINANTS IN MUNICIPAL WASTEWATER BY COMPREHENSIVE TWO DIMENSIONAL GAS CHROMATOGRAPHY-ORBITRAP HIGH RESOLUTION MASS SPECTROMETRY** *Liu Xiangping* *Nanjing Municipal Center for Disease Control and Prevention, Nanjing, China*	**Le.30** **ONE SIZE FITS ALL: SMALL, REUSABLE PDMS BANDS CAPTURE THE HUMAN SKIN VOLATILOME TO FIND DIFFERENTIAL MARKERS OF DISEASE BY GC×GC-TOFMS** *Yvette Naude[1,2]* *[1]University of Pretoria, Pretoria, South Africa* *[2]University of Pretoria Institute for Sustainable Malaria Control (UPISMC), Pretoria, South Africa*
15:20	**Le.24** **TWO-DIMENSIONAL GAS CHROMATOGRAPHY AND HIGH-RESOLUTION MASS SPECTROMETRY FOR PFAS SUSPECT SCREENING IN ENVIRONMENTAL SAMPLES** *Anais Rodrigues* *LECO European Application & Technology Centre, Berlin, Germany*	**Le.31** **EMISSION OF VOLATILE ORGANIC COMPOUNDS FROM RAW MATERIALS POTENTIALLY USED IN HUMAN ODOR SAMPLING** *Jérôme Vial* *ESPCI, Paris, France*
15:35	**Le.25** **IDENTIFYING PREMATURE DETERIORATION IN CEMENTITIOUS MATERIALS USING VOLATILOMICS** *Jason Henry Ideker* *Oregon State University, Corvallis, USA*	**Le.32** **BRIDGING DIMENSIONS: HOW EXTENDED REALITY ENHANCES GCXGC-MS DATA VISUALISATION AND INTERPRETATION** *Michael Wilde* *University of Plymouth, Plymouth, United Kingdom*
15:50	**Le.26** **CONTINUOUS JET-MODULATED HEART-CUTTING EVOLVED GAS ANALYSIS FOR POLYMER CHARACTERIZATION** *Matthew Edwards* *SepSolve Analytical Ltd and Markes International, Peterborough, United Kingdom*	**Le.33** **PRELIMINARY FEATURE EXTRACTION ALGORITHM FOR COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY** *Leandro Wang Hantao* *University of Campinas, Campinas, Brazil*
16:10 – 16:40	**Coffee Break**	
16:40 – 18:50	**GC×GC Young Session 1** **Room Garda** *Chairpersons:* *Hans-Gerd Janssen, Wageningen University and Research, The Netherlands* *Flavio A. Franchina, University of Ferrara, Italy*	**GC×GC Young Session 2** **Room Dolomiti** *Chairpersons:* *Jean-François Focant, University of Liège, Belgium* *Katelynn A. Perrault Uptmor, William & Mary, USA*
16:40	**YLe.01** **NEW DATA ANALYSIS WORKFLOW FOR THE IDENTIFICATION AND PRIORITIZATION OF NEUTRAL PFAS IN ENVIRONMENTAL SAMPLES BY GC×GC-MS** *Nadine Gawlitta[1,2]* *[1]Technical University of Denmark, Lyngby, Denmark* *[2]University of Copenhagen, Frederiksberg, Denmark*	**YLe.14** **COMBINING GC-HRMS AND GC×GC-HRMS FOR COMPREHENSIVE ANALYSIS OF BREAST SKIN VOLATILE ORGANIC COMPOUNDS DURING PREGNANCY** *Serena Reale* *University of Pisa, Pisa, Italy*
16:50	**YLe.02** **GC×GC×CIMS: A COMPREHENSIVE THREE-DIMENSIONAL SEPARATION TECHNIQUE THAT WILL ACCELERATE THE DISCOVERY OF UNDOCUMENTED PER-/POLYFLUOROALKYL SUBSTANCES** *Emmanuel C. Tolefe* *Memorial University of Newfoundland, St Johns, Canada*	**YLe.15 Genzo Shimadzu selected young lecture** **UNVEIL THE TOXICOLOGICALLY RELEVANT FRACTION OF MINERAL OIL BY ON-COLUMN GC×GC** *Damien Pierret* *Gembloux Agro-bio Tech, University of Liege, Gembloux, Belgium*
17:00	**YLe.03** **ADVANCED CHARACTERIZATION OF CONVENTIONAL AND SUSTAINABLE AVIATION FUELS USING COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY** *Nathan De Souza Coelho* *UFMG, Belo Horizonte, Brazil*	**YLe.16** **DIVING INTO TIRE WEAR PARTICLES' COMPOSITION USING PYROLYSIS COUPLED TO COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY-(PI/EI) TIME OF FLIGHT MASS SPECTROMETRY** *Géraldine Dumont[1,2]* *[1]University of Liège, Liège, Belgium* *[2]Flemish Institute for Technological Research (VITO), Mol, Belgium*

17:10	**YLe.04** **USING COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY TO UNVEIL LIPID DEOXYGENATION REACTION INTERMEDIATES IN DROP-IN BIOFUELS PROCESS DEVELOPMENT** *Joana Fernandes* *IFP Energies Nouvelles, Solaize, France*	**YLe.17** **CHARACTERIZATION OF THE VOLATILE FRACTION OF USED WIND TURBINE BLADE PYROLYSIS OIL BY TWO-DIMENSIONAL GAS CHROMATOGRAPHY** *Titziana Orlando[1,2]* *[1]Université de Liège, Liège, Belgium* *[2]Université de Pau et des Pays de L'adour (UPPA), Pau, France*
17:20	**YLe.05** **ANALYTICAL WORKFLOW FOR PARALLEL ANALYSIS OF MINERAL OIL AND PAHS BY HPLC/GC×GC-TOFMS/FID** *Carlo Bellinghieri* *University of Ferrara, Ferrara, Italy*	**YLe.18** **DETAILED CHARACTERIZATION AND CLASSIFICATION OF WASTE TIRE PYROLYSIS OILS FOR HETEROATOM-CONTAINING COMPOUNDS USING GC×GC/TOFMS AND CHEMOMETRIC ANALYSIS** *Xiangdong Chen[1,2]* *[1]LSABM-ESPCI, Paris, France* *[2]MFP Michelin, Clermont-Ferrand, France*
17:30	**YLe.06** **BEYOND CONVENTIONAL APPROACHES: GC×GC-MS AS A BREAKTHROUGH TOOL FOR ALLERGEN QUANTIFICATION AND CHARACTERIZATION OF NATURAL COMPLEX SUBSTANCES** *Elsa Boudard* *Givaudan, Regulatory Affairs - Product Safety Science, Geneva, Switzerland*	**YLe.19** **ADVANCED GC×GC-HRMS PROFILING OF OXYGENATED SPECIES IN CO-PROCESSING PETROGENIC AND BIOGENIC STREAMS IN THE FCC PROCESS** *Vinícius Pereira* *Universidade Federal Do Rio De Janeiro, Rio De Janeiro, Brazil*
17:40	**YLe.07** **DILUTE-AND-INJECT GC×GC–TOFMS FOR UNTARGETED AND TARGETED (PRE- AND POST-) ANALYSIS OF EXTRA-VIRGIN OLIVE OIL: A PRELIMINARY STUDY** *Micaela Galletta* *University of Messina, Messina, Italy*	**YLe.20** **FORENSIC MOLECULAR GEOCHEMISTRY: A CASE STUDY OF AN OIL SPILL ON THE BRAZILIAN COAST** *Flavia Rodrigues Alvares* *UFRJ, Institute of Chemistry, Rio De Janeiro, Brazil*
17:50	**YLe.08** **QUALITY ASSESSMENT OF BRAZILIAN OLIVE OILS BY GC×GC-MS AND CHEMOMETRICS** *Glaucimar Alex Passos De Resende* *Uliège, Liège, Belgium*	**YLe.21 Genzo Shimadzu selected young lecture** **GC×GC-MS-BASED NON-TARGET SCREENING OF HOUSE DUST FROM SEVEN EUROPEAN COUNTRIES** *Andriy Rebryk* *Vrije Universiteit Amsterdam, Amsterdam, The Netherlands*
18:00	**YLe.09** **GEOGRAPHICAL DISCRIMINATION OF HONEY SAMPLES FROM THE 23 VIENNESE DISTRICTS EMPLOYING COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY-MASS SPECTROMETRY** *Natalia Manousi* *TU Wien, Vienna, Austria*	**YLe.22** **ALIGNING PHYSIOLOGICAL AND INSTRUMENTAL SENSITIVITY IN AI-DRIVEN VOLATILOMICS VIA GC×GC–HRMS** *Andrea Caratti* *University of Turin, Turin, Italy*
18:10	**YLe.10** **DIRECT LIQUID INJECTION IN GC×GC–QTOF QUALITY PROFILING OF COMMERCIAL WHISKIES** *Brian Van 't Veer* *Wageningen University & Research, Wageningen, The Netherlands*	**YLe.23** **TOWARD ROBUST COMPREHENSIVE GC×GC COMBUSTION ISOTOPE RATIO MASS SPECTROMETRY: DEVELOPMENT OF NICKEL-WALL COATED MICROREACTORS** *Habib Al-ghoul* *Technical University of Munich, Munich, Germany*
18:20	**YLe.11** **CROSS-SECTIONAL AND LONGITUDINAL VOLATILOMIC PROFILING OF BALSAMIC VINEGARS BY HS-SPME-GC×GC-TOFMS** *Allan Dos Santos Polidoro* *Università degli Studi di Ferrara, Ferrara, Italy*	**YLe.24** **A DOE-BASED APPROACH TO ASSESS RETENTION INDICES VARIABILITY IN GC×GC ACROSS COLUMN PHASES AND OPERATING CONDITIONS** *Djulia Bensaada* *University of Liège, Liège, Belgium*
18:30	**YLe.12 Genzo Shimadzu selected young lecture** **METABOLOMIC PROFILING FOR SPECIES-LEVEL IDENTIFICATION OF SPF WOOD USING GC×GC-TOFMS** *Ewenet Yemane Mesfin* *University of Alberta, Alberta, Canada*	**YLe.25** **OPTIMIZATION OF DIRECT THERMAL EXTRACTION PARAMETERS FOR ANALYSIS OF HIGH-WATER CONTENT SAMPLES USING COMPREHENSIVE TWO-DIMENSIONAL GA** **S CHROMATOGRAPHY** *Jenna Diefenderfer[1,2]* *[1]Arizona State University, Tempe, USA* *[2]The Biodesign Institute, Tempe, USA*

18:40	**YLe.13 Genzo Shimadzu selected young lecture** **SOLID-PHASE MICROEXTRACTION ARROW COMBINED WITH COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY–MASS SPECTROMETRY FOR THE ELUCIDATION OF THE VOLATILE PROFILE OF PLANT-BASED PROTEIN POWDERS** *Apostolia Tsiasioti[1,2]* *[1]Aristotle University of Thessaloniki, Thessaloniki, Greece* *[2]TU Wien, Vienna, Austria*	**YLe.26** **ION APPROACH IN MOLECULAR INVESTIGATION OF MULTIDIMENSIONAL DATA: A NOVEL WAY TO ACCELERATE RESULTS** *Dayane Magalhães Coutinho* *Federal University of Rio De Janeiro, Rio De Janeiro, Brazil*
19:00	**Welcome Reception Cocktail offered by Chromaleont, RIC Group and SPECTRA Analyisis**	

Tuesday, May 19, 2026

09:00 – 10:35		**Opening Address 44th ISCC - Room Garda** **ISCC Session 1 – Awards Presentation and Lectures** *See ISCC program for details*
10:35 – 11:05	**Coffee Break – Exhibition**	
11:05 – 13:00	**GC×GC Session 6 – FUNDAMENTALS 2 AND FOOD 2** **Room Dolomiti** *Chairpersons:* *Giorgia Purcaro, Gembloux Agro-bio Tech, Belgium* *Leandro Wang Hantao, University of Campinas, Brazil*	**ISCC Session 2 – NANO AND CAPILLARY LIQUID CHROMATOGRAPHY** **Room Garda** *See ISCC program for details*
11:05	**Le.34** **BEYOND RESOLUTION: GC×GC AS AN ENABLER OF PREDICTIVE, PURPOSE-DRIVEN ANALYTICAL SCIENCE** *Chiara Cordero* *University of Turin, Turin, Italy*	
11:25	**Le.35** **MAJOR BENEFITS OF USING COMPREHENSIVE 2D GAS CHROMATOGRAPHY-MASS SPECTROMETRY IN FOOD ANALYSIS** *Peter Q. Tranchida* *University of Messina, Messina, Italy*	
11:45	**Le.36** **TRANSFERABILITY OF MOAH ANALYSIS FROM THERMAL-MODULATED TO FLOW-MODULATED GCXGC** *Nancy Wolf* *Laboratory Lommatzsch & Säger, Radebeul, Germany*	
12:00	**Le.37** **MINIATURIZED LIQUID-LIQUID EXTRACTION (LLE)-GC×GC-MS/FID APPROACH FOR SELECTIVE ENRICHMENT AND DETAILED CHARACTERIZATION OF ≥3-RING MOAH IN COMPLEX MINERAL OIL MIXTURES** *Laura Barp* *University of Udine, Udine, Italy*	
12:15	**Le.38** **EVOLVING THE UBIQUITOUS BENCHTOP GC/MS – HOW CONSTANT FLOW SPLITTING AND LOW-COST FLOW MODULATION CAN BRING QUANTITATIVE GCXGC-FID/MSD TO ANY BENCH** *Scott James Hoy* *Agilent Technologies, Wilmington, USA*	
12:30	**Le.39** **ISOLATION STRATEGIES FOR TRI-/POLYAROMATIC HYDROCARBONS AND DETERMINATION VIA GCXGC-MS/FID** *Martin Lommatzsch* *Laboratory Lommatzsch and Säger Gmbh, Cologne, Germany*	

12:45	**Le.40** **A NEW EUROPEAN GUIDANCE DOCUMENT ON CHARACTERIZATION OF MOSH AND MOAH BY GC×GC FOR THE HARMONIZATION OF THE ANALYSIS OF MINERAL OIL HYDROCARBON CONTAMINATION IN FOODS** *Alexander Montoya-arroyo[1,2]* *[1] Technical University of Denmark, Kgs Lyngby, Denmark* *[2] European Union Reference Laboratory for Processing Contaminants (EURL-PC), Kgs Lyngby, Denmark*	
13:00 – 14:00	**Lunch Break on your own**	
14:00 – 15:20	**GC×GC Session 7 – PETROCHEMICAL** **Room Dolomiti** *Chairpersons:* *Robert A. Shellie, University of Tasmania, Australia* *Robert K. Nelson, Woods Hole Oceanographic Institution, USA*	**ISCC Session 3 – MULTIDIMENSIONAL AND OTHER COMPREHENSIVE TECHNIQUES** **Room Garda** *See ISCC program for details*
14:00	**Le.41** **ADAPTING TILE-BASED DISCOVERY ANALYSIS FOR COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY WITH VACUUM ULTRAVIOLET SPECTROSCOPY (GC×GC-VUV) DATA OF GAS OILS** *Robert E. Synovec* *University of Washington, Seattle, USA*	
14:20	**Le.42** **PREDICTING THE PROPERTIES OF SUSTAINABLE AVIATION FUELS FROM THEIR COMPREHENSIVE ANALYSIS BY GC×GC/MS** *Erwin Rosenberg* *TU Wien, Vienna, Austria*	
14:35	**Le.43** **THE RESURGENCE OF GC(×GC) IN FUEL ANALYSIS – NEW CHALLENGES IN THE ASSESSMENT OF EMERGING SYNTHETIC FUELS** *Thomas Gröger* *German Aerospace Center (DLR), Stuttgart, Germany*	
14:50	**Le.44** **HOW GC×GC DE-RISKS THE INDUSTRIAL ENERGY TRANSITION: FROM PETROLEUM TO BEYOND** *Marco Piparo* *Totalenergies, Rorgerville, France*	
15:05	**Le.45** **GC×GC-TOFMS INSIGHTS INTO AIRCRAFT ENGINE EXHAUST EMISSIONS FROM SUSTAINABLE AVIATION FUELS** *Barbara Giocastro* *German Aerospace Center (DLR), Stuttgart, Germany*	
15:20 – 16:50	**Coffee Break – Exhibition – Vendor Seminars – Posters A, B, C, D, E, F, H, K**	
15:45 – 16:45	**Room Garda** **Seminar** **LECO**	**Room Dolomiti** **Seminar** **SPECTRA ANALYSIS**
16:50 – 18:35	**GC×GC Session 8 – INDUSTRY – VOCs** **Room Dolomiti** *Chairpersons:* *Thomas Gröger, German Aerospace Center (DLR), Stuttgart, Germany* *John Dimandja, Georgia Institute of Technology, USA*	**ISCC Session 4 – SUPERCRITICAL FLUID CHROMATOGRAPHY – CONTAMINANTS** **Room Garda** *See ISCC program for details*

16:50 **Le.46**
SPECIATION OF N-, O-, AND CL-CONTAMINANTS IN DISTILLED FRACTIONS OF PLASTIC PYROLYSIS OIL: DISTINCT ANALYTICAL METHODS FOR EACH ELEMENT
Bruno Da Costa Magalhaes
The Dow Chemical Company, Hoek, The Netherlands

17:05 **Le.47**
IMPROVED CHARACTERIZATION OF VOCS IN VIRGIN AND RECYCLED PLASTICS VIA HS SPME AND GC×GC-MS ANALYSIS
Marco Beccaria
Totalenergies, Seneffe, Belgium

17:20 **Le.48**
CHARACTERIZING SUSTAINABLE AVIATION FUELS: ANALYTICAL CHALLENGES AND OPPORTUNITIES USING GC×GC-VUV
Max Jennerwein
ASG Analytik-service, Neusaess, Germany

17:35 **Le.49**
AUGMENTING CHEMICAL RECYCLING VIA DATA-DRIVEN MODEL FOR GC×GC BASED GROUP-TYPING ANALYSIS
Anupam Giri
SABIC, Bergen Op Zoom, The Netherlands

17:50 **Le.50**
COMPARATIVE PROFILING OF OUD (AGARWOOD) SMOKE EMISSIONS USING TD–GC×GC–TOF MS
Luciana Da Costa Carvalho
University of Oxford, Oxford, United Kingdom

18:05 **Le.51**
DIGITAL SCENT SIGNATURE
Stepan Urban
University of Chemistry and Technology, Prague, Czech Republic

18:20 **Le.52**
IMPROVING SENSORY–CHEMICAL ASSIGNMENTS IN GC–O WORKFLOWS WITH TRAP-BASED ENRICHMENT AND GC×GC
Laura Mcgregor
Sepsolve Analytical, Peterborough, United Kingdom

18:35 – 18:50 **Closing Address 21st GC×GC – Room Dolomiti**
Chairpersons:

Luigi Mondello, University of Messina, Italy
Philip Marriott, Monash University, Australia

Presentation of the:
RICHARD SACKS BEST POSTER AWARDS (sponsored by LECO)
GENZO SHIMADZU Oral Awards (Young Scientists)
ABC Springer Best Poster Award (Young Scientists)
Separations MDPI Best Oral GC×GC Award (Young Scientists)

SCIENTIFIC PROGRAM 44th ISCC

Tuesday, May 19, 2026

09:00 – 09:25 **Opening Address 44th ISCC - Room Garda**
Chairpersons:
Luigi Mondello
University of Messina, Italy
Pat Sandra
RIC Group, Belgium
Alessio Zanoni
Mayor of Riva del Garda, Italy

09:25 – 10:35 **ISCC Session 1 – Awards Presentation and Lectures**

09:25 – 09:35 **M.J.E. Golay Award Presentation**
Sponsored by Chromaleont and RIC Group
Chairperson:
Pat Sandra
RIC Group, Belgium

09:35 – 10:00 **LE.01 M.J.E. Golay Award Lecture**
PLANT VOLATILES AND CAPILLARY GAS CHROMATOGRAPHY: A NEVER-ENDING STORY OF CONTINUOUS INNOVATION
Carlo Bicchi
University of Turin, Turin, Italy

10:00 – 10:10 **ASAC Fritz Pregl Medal Presentation**
Assigned by Austrian Society of Analytical Chemistry (ASAC)
Chairperson:
Christian W. Klampfl
Johannes Kepler University, Austria

10:10 – 10:35 **LE.02 ASAC Fritz Pregl Medal Lecture**
MICROANALYSIS EMPLOYING MICROSCALE CHROMATOGRAPHY AND MASS SPECTROMETRY: KEY TECHNOLOGIES FOR LISTENING TO COMMUNICATION IN BIOLOGICAL SYSTEMS
Christian Huber
University of Salzburg, Salzburg, Austria

10:35 - 11:05 **Coffee Break - Exhibition**

11:05 – 13:00 **ISCC Session 2 – NANO AND CAPILLARY LIQUID CHROMATOGRAPHY**
Room Garda
Chairpersons:
Michael Ramsey, The University of North Carolina at Chapel Hill, USA
Christian Huber, University of Salzburg, Austria

GC×GC Session 6 – FUNDAMENTALS 2
Room Dolomiti

See GC×GC program for details

11:05 **LE.03**
FUTURE TRENDS IN CAPILLARY NANO-HPLC COLUMN TECHNOLOGY
Gert Desmet
Vrije Universiteit Brussel, Brussel, Belgium

11:25 **LE.04**
NEW APPROACHES TO CAPILLARY LC COLUMN DEVELOPMENT
James Grinias
Rowan University, Glassboro, USA

11:45	**LE.05** **PORTABLE CAPILLARY LIQUID CHROMATOGRAPHY: NEW ENABLING TECHNOLOGIES FOR REAL-TIME ON-SITE AND IN-SITU CHEMICAL ANALYSIS** *Brett Paull* *University of Tasmania, Hobart, Australia*	
12:00	**LE.06** **TRANSFERABILITY OF A QSRR MODELLING STRATEGY ACROSS COLUMN DIMENSIONS AND INSTRUMENTAL CONFIGURATIONS** *Francesca Rigano* *University of Messina, Messina, Italy*	
12:15	**LE.07** **DUAL CAPILLARY ION CHROMATOGRAPHY-MASS SPECTROMETRY FOR THE ANALYSIS OF 26 INORGANIC AND ORGANIC IONS IN HIGH-RESOLVED ANTARCTIC ICE CORE: CONCENTRATIONS, TRENDS, AND SYNERGIES** *Estrella Sanz Rodriguez* *University of Tasmania, Hobart, Australia*	
12:30	**LE.08** **WALL-INDUCED DISPERSION IN MULTICAPILLARY OPEN TUBULAR LC COLUMNS ENABLING TRANSVERSE DIFFUSION** *Alessandra Adrover* *Sapienza University of Rome, Rome, Italy*	
12:45	**LE.09** **ENHANCING ANALYTICAL PERFORMANCE: THE ROLE OF SMALL ID COLUMNS AND INERT HARDWARE IN HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY** *Egidijus Machtejevas* *Merck Life Science KGaA, Darmstadt, Germany*	
13:00 - 14:00	**Lunch Break**	
14:00 - 15:20	**ISCC Session 3 – MULTIDIMENSIONAL AND OTHER COMPREHENSIVE TECHNIQUES** **Room Garda** *Chairpersons:* *Paola Donato, University of Messina, Italy* *Koen Sandra, RIC Group, Belgium*	**GC×GC Session 7 – PETROCHEMICAL** **Room Dolomiti** *See GC×GC program for details*
14:00	**LE.10** **COUPLING LC×LC AND GC WITH SLIM-QTOF-MS FOR A POWERFUL ORTHOGONAL TWO-DIMENSIONAL SEPARATION OF COMPLEX SAMPLES** *Oliver Schmitz* *University of Duisburg-Essen, Essen, Germany*	
14:20	**LE.11** **BIOAVAILABILITY AND METABOLITE PROFILING OF A NEUROPROTECTIVE TANNAT GRAPE POMACE EXTRACT AFTER IN-VITRO SIMULATED DIGESTION** *Miguel Herrero* *Institute of Food Science Research - CIAL (CSIC), Madrid, Spain*	

14:35	**LE.12** **APPLICATION OF MULTIDIMENSIONAL CHROMATOGRAPHIC TECHNIQUES TO THE STUDY OF THE STEROLS CONTENT IN HIGH VALUE EDIBLE OILS** *Pierluigi Delmonte* *US Food and Drug Administration, College Park, USA*	
14:50	**LE.13** **ADDRESSING THE PURITY-YIELD TRADE-OFF IN OLIGONUCLEOTIDE PURIFICATION BY INTEGRATED TWO-DIMENSIONAL CHROMATOGRAPHY ON SEMI-PREPARATIVE SCALE** *Chiara De Luca* *University of Ferrara, Ferrara, Italy*	
15:05	**LE.14** **APPLICATION OF ONLINE COUPLED LC-GC-FID TO DETERMINE SPECIFIC MIGRATION OF POTENTIALLY HARMFUL CYCLIC SILOXANES FROM FOOD CONTACT SILICONE ELASTOMERS** *Martin Eckardt* *Laboratory Lommatzsch and Säger Gmbh, Cologne, Germany*	
15:20 – 16:50	**Coffee Break – Exhibition – Vendor Seminars – Posters A, B, C, D, E, F, H, K**	
15:45 – 16:45	**Room Garda** **Seminar** **LECO**	**Room Dolomiti** **Seminar** **SPECTRA ANALYSIS**
16:50 – 18:35	**ISCC Session 4 – SUPERCRITICAL FLUID CHROMATOGRAPHY AND CONTAMINANTS** **Room Garda** *Chairpersons:* *Fabrice Gilles Ernest Gritti, Waters Corporation, USA* *Rosa Maria Marcé, Universitat Rovira i Virgili, Spain*	**GC×GC Session 8– INDUSTRY - VOCs** **Room Dolomiti** *See GC×GC program for details*
16:50	**LE.15** **IMPROVING THE GREENNESS OF SFC SEPARATIONS FOR THE ANALYSIS OF NATURAL SAMPLES** *Paola Donato* *University of Messina, Messina, Italy*	
17:05	**LE.16** **DEVELOPMENT AND OPTIMIZATION OF A 2D SFC SYSTEM IN MULTIPLE HEART-CUT MODE** *Clément De Saint Jores* *Université D'orléans, Orléans, France*	
17:20	**LE.17** **THERMODYNAMIC ASPECTS IN SUPERCRITICAL FLUID CHROMATOGRAPHY FOR CHIRAL SEPARATIONS** *Simona Felletti* *University of Ferrara, Ferrara, Italy*	
17:35	**LE.18** **IS SFC A GREENER, ECO-FRIENDLY AND COST-EFFECTIVE CHROMATOGRAPHY TECHNIQUE?** *Gerard Rosse* *PIC Solution, Inc., San Diego, USA*	

17:50	**LE.19** **ARE THERE ANY BENEFITS WITH PFAS TESTED CONSUMABLES?** *Patrik Appelblad* *Merck Life Science Oslo, Norway*	
18:05	**LE.20** **BEYOND QUANTIFICATION: LINKING CHEMICAL CHARACTERIZATION AND GENOTOXICITY IN MOSH/MOAH ASSESSMENT** *Andrea Hochegger* *University of Technology Graz, Graz, Austria*	
18:20	**LE.21** **COMPLEMENTARITY OF GC-ORBITRAP-HRMS AND GC×GC-TOF-MS FOR THE COMPREHENSIVE CHARACTERIZATION OF INTENTIONALLY AND NON-INTENTIONALLY ADDED SUBSTANCES IN BIO-BASED FOOD CONTACT MATERIALS** *Maurizio Piergiovanni* *University of Parma, Parma, Italy*	
19:00	**Cocktail offered PeakScientific, Congress Centre**	

Wednesday, May 20, 2026

09:00 – 10:50	**ISCC Session 5 - CAPILLARY GC 1** **Room Garda** *Chairpersons:* *Chiara Cordero, University of Turin, Italy* *Nicholas Snow, Seton Hall University, USA*	**ISCC Session 6 – HYPHENATED TECHNIQUES** **Room Dolomiti** *Chairpersons:* *Oliver Schimtz, University of Duisburg-Essen, Germany* *James Grinias, Rowan University, USA*
09:00	**LE.22** **FROM FLAME TO FAME: STRATEGIES TO ELEVATE THE SENSITIVITY AND RELIABILITY OF GC-FID** *Jim Luong[1,2]* *[1]Dow Chemical Canada, Fort Saskatchewan, Canada* *[2]University of Tasmania, Hobart, Australia*	**LE.29** **HIGH THROUGHPUT METABOLOMICS WITH MICROCHIP CE-MS AND AUTOMATED ANALYSIS** *Michael Ramsey[1,2]* *[1]The University of North Carolina at Chapel Hill, Chapel Hill, USA* *[2]Move Analytical, Carrborro, USA*
09:20	**LE.23** **IMPROVING CHIRAL SEPARATION OF TERPENES IN CITRUS ESSENTIAL OILS BY USING CONVENTIONAL AND TANDEM CHIRAL COLUMNS** *Danilo Sciarrone* *University of Messina, Messina, Italy*	**LE.30** **COLD EI – THE WAY TO IMPROVE GC-MS AND INCREASE ITS RANGE OF APPLICATIONS** *Aviv Amirav* *Tel Aviv University, Tel Aviv, Israel*
09:35	**LE.24** **AN ULTIMATE ANALYTICAL CHALLENGE: GC-BASED MOLECULAR CHARACTERIZATION OF NITROGEN- AND OXYGEN-RICH BIO-OILS** *Jan H Christensen* *University of Copenhagen, Frederiksberg, Denmark*	**LE.31** **INVESTIGATION OF TRANSITION METAL COMPLEXES BY COMBINING HPLC, ION MOBILITY AND HIGH RESOLUTION MASS SPECTROMETRY** *Christian W Klampfl* *Johannes Kepler University, Linz, Austria*
09:50	**LE.25** **GC-HRMS-BASED METABOLOMICS WITH CHEMOMETRIC DISCRIMINATION OF TREATMENT EFFECTS IN CANNABIS SATIVA** *Michal Stupák* *UCT Prague, Prague, Czech Republic*	**LE.32** **13C TRACER ANALYSIS FOR MICROBIAL METABOLOMICS: THE ROLE OF GC-(Q)TOFMS IN IDENTIFYING PATHWAYS FOR CO2 FIXATION** *Christina Troyer* *BOKU University, Vienna, Austria*
10:05	**LE.26** **COMPOUND-SPECIFIC ISOTOPE ANALYSIS BY GAS CHROMATOGRAPHY–COMBUSTION–CAPILLARY ABSORPTION SPECTROSCOPY (GC-C-CAS) FOR EDIBLE OIL AUTHENTICATION** *Taylor Hayward* *Activated Research Company, Eden Prairie, United States*	**LE.33** **HIGH-RESOLUTION MASS SPECTROMETRY WORKFLOW FOR PENDIMETHALIN BIOTRANSFORMATION PATHWAY ELUCIDATION IN THE ZEBRAFISH MODEL** *Federico Fanti* *University of Teramo, Teramo, Italy*
10:20	**LE.27** **A POLAR GAS PHASE APPROACH FOR DIRECT GC–MS ANALYSIS OF PRIMARY AND SECONDARY AMINES** *Vladimir Shulaev* *University of North Texas, Denton, USA*	**LE.34** **EVALUATION OF GREEN SOLVENTS RETENTION BEHAVIOUR IN REVERSED-PHASE HPLC FOR THE ANALYSIS OF CONTAMINANTS** *Danilo Donnarumma* *University of Messina, Messina, Italy*
10:35	**LE.28** **THE BODY SCENT AS A NON-INVASIVE INDICATOR OF A WOMAN'S AGE** *Veronika Škeříková* *UCT Prague, Prague, Czech Republic*	**LE.35** **COMBINING INFORMATION FROM MULTIPLE STATIONARY PHASES AND IN-SOURCE FRAGMENTATION DATA FOR THE UNAMBIGUOUS HRMS-BASED PROFILING OF OXYSTEROLS IN HEALTHY AND PANCREATIC TUMOUR CELLS** *Andrea Castellaneta* *University of Bari Aldo Moro, Bari, Italy*
10:50 – 12:30	**Coffee Break – Vendor Seminars – Exhibition – Posters G, I**	

10:50 – 11:50	**Room Garda** **Seminar** **SHIMADZU**	**Room Dolomiti** **Seminar** **RESTEK**
	Room Belvedere RIVA **Seminar** **ENTECH INSTRUMENTS**	
11:50 – 12:50	**Room Garda** **Seminar** **LNI SWISSGAS**	**Room Dolomiti** **Seminar** **GERSTEL** **SBSE performance enhancement: New phase materials widen the polarity range** Frank Jacobs
	Room Belvedere RIVA **Seminar** **NIMFAST TECHNOLOGIES** **DUO-Thru® microfluidics — Explore new experiences of capillary column connect and multi-dimensional GC** *Zhijun Zhao*	

12:30 – 13:30 **IUPAC Project Round Table Discussion: Greenness of official sample preparation methods**
Room Dolomiti

Moderator:
Prof. Elia Psillakis, *Technical University of Crete, Greece*
Panelists:
Prof. Stig Pedersen-Bjergaard *University of Oslo, Norway*
Prof. František Švec *Charles University, Czech Republic*
Dr. Björn Erxleben *Shimadzu Europa, Germany*
Dr. Frank Michel *Merck KGaA, Germany*
Dr. Massimo Santoro *Markes International, UK*

12:30 – 14:00	**Lunch Break**	
14:00 – 15:20	**ISCC Session 7 – COLUMN TECHNOLOGY** **Room Garda** *Chairpersons:* *Gert Desmet, Vrije Universiteit Brussel, Belgium* *František Švec, Charles University, Czech Republic*	**ISCC Session 8 – BIO/PHARMA** **Room Dolomiti** *Chairpersons:* *Elena E. Stashenko, Universidad Industrial de Santander, Colombia* *Guowang Xu, Dalian Institute of Chemical Physics, China*
14:00	**LE.36** **SLALOM CHROMATOGRAPHY RETURNS: POWERING BREAKTHROUGHS IN LARGE DNA/RNA CHARACTERIZATION FOR CELL AND GENE THERAPY** *Fabrice Gilles Ernest Gritti* *Waters Corporation, Milford, USA*	**LE.41** **HIGH THROUGHPUT LIQUID CHROMATOGRAPHY** *Robert Kennedy* *University of Michigan, Ann Arbor, USA*
14:20	**LE.37** **ULTRA-LOW BLEED AND HIGH INERTNESS IN THE NEXT GENERATION OF 5%-PHENYL GC COLUMNS: IMPROVING TRACE-LEVEL QUANTIFICATION IN GC/MS** *Gustavo Serrano Izaguirre* *Agilent Technologies, Wilmington, USA*	**LE.42** **ANALYSIS OF OLIGONUCLEOTIDES BY HPLC-UV AND HPLC-MS WITHOUT USING TOXIC ORGANIC SOLVENTS AND ADDITIVES OR INVOLATILE BUFFERS IN THE MOBILE PHASE** *David Victor McCalley* *UWE Bristol, United Kingdom*

14:35	**LE.38** **EXPLORING RETENTION PROPERTIES AND SELECTIVITY OF DIFFERENT STATIONARY PHASES FOR THE CHARACTERIZATION OF NATURAL EXTRACTS THROUGH ULTRA-HIGH PERFORMANCE LIQUID CHROMATOGRAPHY COUPLED TO HIGH RESOLUTION MASS SPECTROMETRY** *Martina Catani* *University of Ferrara, Ferrara, Italy*	**LE.43** **DEVELOPMENT OF VALIDATED PROTOCOL BASED ON MICRO-SPE SAMPLE PREPARATION AND HPLC-MS/MS ANALYSIS FOR MONITORING OF TOFACITINIB, UPADACITINIB AND FILGOTINIB LEVELS IN THE SERUM OF PATIENTS TREATED FOR INFLAMMATORY BOWEL DISEASE** *Peter Bystricky* *Faculty of Pharmacy Comenius University in Bratislava,Bratislava, Slovakia*
14:50	**LE.39** **TRIMAX DEACTIVATION: ADVANCEMENTS IN LOW-LEVEL ANALYSIS FOR CAPILLARY GAS CHROMATOGRAPHY** *Victoria R Zeger* *Restek Corporation, Bellefonte, United States*	**LE.44** **FETAL EXPOSURE TO DRUGS OF ABUSE: A COMPARATIVE STUDY BETWEEN MATERNALSELF-REPORT AND THE PRESENCE OF SUBSTANCES IN BIOLOGICAL SAMPLES** *Bruno Spinosa De Martinis* *University of Sao Paulo, Brazil*
15:05	**LE.40** **WEAK Π INTERACTIONS AS A DRIVING FORCE IN ADVANCED LIQUID CHROMATOGRAPHIC SEPARATIONS** *Takuya Kubo* *Kyoto Prefectural University, Kyoto, Japan*	**LE.45** **HOW NATURAL DEEP EUTECTIC SOLVENTS SHAPE THE LC–HRMS CHROMATOGRAPHIC FINGERPRINTS OF BIOACTIVE NATURAL PRODUCTS** *Gerardo Alvarez Rivera* *Universidade de Santiago de Compostela, Santiago de Compostela, Spain*
15.20 – 16:40	**Coffee Break – Seminars – Exhibition – Posters J, L**	
15:40 – 16:40	**Room Garda** **Seminar** **AGILENT** **GC×GC and the Future of Cleaner Aviation** *Julio Llorca Porcel* **Method Optimization and Workflow Strategies for Achieving Long-Term Success with Practical Flow-Modulated GCxGC** *Scott Hoy*	**Room Dolomiti** **Seminar** **VUV Analytics** **From Photons to Insights: the expanding role of Vacuum Ultraviolet (VUV) Spectroscopy in Today's lab** *Sean Jameson*
	Room Riva **Seminar** **Da Vinci** **Double your GC Capability without a second GC** *Balt Hagens*	
16:40 – 18.10	**ISCC Young Scientists 1** **Room Garda** *Chairpersons:* *Marco Gomes Da Silva, NOVA University Lisbon, Portugal* *Marco Beccaria, Totalenergies, Belgium*	**ISCC Young Scientists 2** **Room Dolomiti** *Chairpersons:* *Erica Liberto, University of Turin, Italy* *Martina Catani, University of Ferrara, Italy*
16:40	**YLE.01** **INCREASING DETECTION SENSITIVITY IN GAS CHROMATOGRAPHY BY COOLING A NANO-GRAVIMETRIC DETECTOR** *Ambroisine Michel* *Institut des Sciences Analytiques, Villeurbanne, France*	**YLE.10** **COMPLEMENTARY VOLATILOMIC PROFILING OF UNESCO RECOGNIZED KHAWLANI ARABICA COFFEE BY GC–EI–QTOF AND ATMOSPHERIC-PRESSURE IONIZATION-SLIM–QTOF MASS SPECTROMETRY** *Yassine Oulad El Majdoub* *University Duisburg Essen, Essen, Germany*

16:50	**YLE.02** **INERTIAL GAS CHROMATOGRAPHY** *Valentina Biagioni* *Sapienza University of Rome, Rome, Italy*	**YLE.11** **SAMPLE PREPARATION STRATEGIES FOR LIPIDOMICS INVESTIGATION IN FOOD ANALYSIS. CASE OF STUDY: EXTRACTION AND ANALYTICAL DETERMINATION OF THE LIPID FRACTION IN HIGH-QUALITY FOOD (BRONTE SICILIAN PISTACHIOS)** *Giulia Giacoppo* *University of Ferrara, Ferrara, Italy*
17:00	**YLE.03** **DEVELOPMENT OF CHIRAL GAS CHROMATOGRAPHY COLUMNS BASED ON MEMS TECHNOLOGIES DEDICATED TO SPACE EXPLORATION** *Gabin Bergerot* *Université De Rouen, Mont-saint-aignan, France*	**YLE.12** **NON-TARGETED VOLATILOMICS IN FOOD AUTHENTICITY: BRIDGING RESOURCE-EFFICIENT HS-GC-IMS AND HIGH-RESOLUTION GC-MS** *Lukas Bodenbender* *Technische Mannheim,* *Germany*
17:10	**YLE.04** **ANALYSIS OF CHIRAL AND ACHIRAL PESTICIDES IN WHITE WINE BY ENANTIOSELECTIVE LOW-PRESSURE GC–MS/MS** *Giorgia Rinaldi* *University of Messina, Messina, Italy*	**YLE.13 Genzo Shimadzu selected young lecture** **TRANSFORMATIONS OF ODOR PROFILES IN PINE WOOD DUE TO THERMAL DEGRADATION OF FATTY ACIDS** *Valentin Schierer[1,2]* *[1]Kompettenzzentrum Holz Gmbh, Linz, Austria* *[2]TU Wien, Vienna, Austria*
17:20	**YLE.05 Genzo Shimadzu selected young lecture** **RAPID SOLVENT-FREE SCREENING OF MINERAL OIL HYDROCARBONS IN PULP AND PAPER USING HS-SPME-GC-MS** *Elise Hecht* *Graz University of Technology, Graz, Austria*	**YLE.14 Genzo Shimadzu selected young lecture** **HOW RELIABLE IS AI IN FOOD ANALYSIS? A CRITICAL ASSESSMENT OF MACHINE LEARNING AND DEEP LEARNING METHODOLOGIES** *Giorgio Felizzato* *University of Turin, Turin, Italy*
17:30	**YLE.06** **PAH DETECTION IN ALCOHOLIC BEVERAGES USING CONDENSED PHASE-MEMBRANE INTRODUCTION MASS SPECTROMETRY-LIQUID ELECTRON IONIZATION (CP-MIMS-LEI): A DIRECT MASS SPECTROMETRY APPROACH** *Giovanna Nevola* *University of Urbino Carlo Bo, Urbino, Italy*	**YLE.15** **TARGETED GC–MS/MS METABOLOMICS FOR PROFILING ACUTE CELLULAR METABOLIC PERTURBATIONS INDUCED BY PHTHALATE EXPOSURE** *Nayara Silva Fraga* *Universidade Federal De Minas Gerais, Belo Horizonte, Brazil*
17:40	**YLE.07** **ALTERNATIVE METHODS FOR EVALUATING MOSH AND MOAH** *Aleksandra Gorska* *Gembloux Agro-bio Tech, University of Liège, Gembloux, Belgium*	**YLE.16** **ANALYTICAL STRATEGIES FOR MONITORING DYNAMIC AROMA RELEASE IN A SIMULATED MOUTH SYSTEM** *Fulvia Trapani* *University of Turin, Turin, Italy*
17:50	**YLE.08** **CONTINUOUS MONITORING OF BIOGENIC VOLATILE ORGANIC COMPOUNDS IN AIR AT PPT–PPB LEVELS USING ONLINE GAS CHROMATOGRAPHY** *Ali Ghaddar[1,2]* *[1]Institute of Chemistry and Processes for Energy, Strasbourg, France* [2]Chromatotec, Saint-andré-de-cubzac, France	**YLE.17** **COMPREHENSIVE INSTRUMENTAL ANALYSIS OF CHILDHOOD BODY ODOR BY GC-O, GC-MS, AND 2D-GC-MS/O** *Laleh Kiavar* *Friedrich-alexander University (FAU), Erlangen, Germany*
18:00	**YLE.09** **BEYOND FRAGMENTATION: GC-HRMS WITH DIELECTRIC BARRIER DICHARGE SOFT IONIZATION FOR THE ANALYSIS OF PLASTIC MIGRANTS** *Javier Blázquez-Martín* *University of La Rioja, Logroño, Spain*	**YLE.18** **ANALYTICAL WORKFLOW FOR HIGH-THROUGHPUT CHEMICAL CHARACTERIZATION OF ADVANCED BIO-OILS** *Johanna Iman Al-Hag[1,2]* *[1]University of Copenhagen, Frederiksberg, Denmark* *[2] Topsoe A/S, Kongens Lyngby, Denmark*
18:45	**Wine and Cheese offered by Chromaleont, RIC Group and SPECTRA Analysis**	

Thursday May 21, 2026

09:00 – 11:05	**ISCC Session 9 – DAC SAMPLE PREPARATION STUDY GROUP AND NETWORK** **Room Garda** *Chairpersons:* *Valérie Pichon, Sorbonne University, France* *Giorgia Purcaro, Gembloux Agro-bio Tech, Belgium*	**ISCC Session 10 – CAPILLARY GC 2 – AUTOMATION - SAMPLING SYSTEM** **Room Dolomiti** *Chairpersons:* *Carlo Bicchi, University of Turin, Italy* *Jim Luong, Dow Chemical Canada, Canada*
09:00	**LE.46** **GREENER BY DESIGN: TRANSFORMING ANALYTICAL CHEMISTRY WITH PURPOSE** *Elia Psillakis* *Technical University of Crete, Chania, Greece*	**LE.54** **CHALLENGING TODAY'S PERCEPTIONS AND ASSUMPTIONS ABOUT GOOD 'OLE GC** *Nicholas Snow* *Seton Hall University, South Orange, USA*
09:20	**LE.47** **ELECTROMEMBRANE EXTRACTION – PRINCIPLES AND APPLICATIONS** *Stig Pedersen-Bjergaard* *University of Oslo, Oslo, Norway*	**LE.55** **INNOVATIONS IN HYDROGEN CYANIDE DETECTION: A NOVEL APPROACH TO REALIZE ENHANCED SELECTIVITY AND SENSITIVITY** *Ronda Gras[1,2]* *[1]Dow Canada, Alberta, Canada* *[2]Australian Centre for Research on Separation Science (ACROSS), Hobart, Australia*
09:35	**LE.48** **Rethinking sample preparation for sustainable fragrance quality control** *Cecilia Cagliero* *University of Turin, Turin, Italy*	**LE.56** **COMPARATIVE EVALUATION AND OPTIMISATION OF SORPTIVE SAMPLING SYSTEMS FOR VOC PROFILING BY GC-MS IN COMPLEX NATURAL MATRICES** *Natasha D. Spadafora* *University of Ferrara, Ferrara, Italy*
09:50	**LE.49** **INSIGHTS INTO PRESENT AND NEXT-GENERATION METRICS** *Francisco Pena Pereira* *University of Vigo, Vigo, Spain*	**LE.57** **EXTRACTIVE-LIQUID SAMPLING ELECTRON IONIZATION MASS SPECTROMETRY (E-LEI-MS): FUNDAMENTALS AND APPLICATIONS** *Adriana Arigò* *University of Urbino Carlo Bo, Urbino, Italy*
10:05	**LE.50** **METAL-ORGANIC FRAMEWORK-BASED MIXED MATRIX MEMBRANES FOR THIN-FILM SOLID-PHASE MICROEXTRACTION** *Verónica Pino[1,2]* *[1]University of La Laguna, Chemistry, Analytical Chemistry Division, La Laguna, Spain* *[2]University of La Laguna, Unidad de Investigación de Bioanalítica Y Medioambiente, La Laguna, Spain*	**LE.58** **PRELIMINARY RESULTS OF SENSORY AND AROMA PROFILE MEASUREMENTS IN THE COFFEE DENOMINATION OF ORIGIN FOR TWO REGIONS OF RIO DE JANEIRO STATE** *Ademario Iris Da Silva Junior* *IFRJ, Rio De Janeiro, Brazil*
10:20	**LE.51** **AUTOMATED SAMPLE PREPARATION ON-LINE COUPLED TO THE SEPARATION IN SEQUENTIAL INJECTION OR LIQUID CHROMATOGRAPHY SYSTEMS** *Hana Sklenářová* *Charles University, Hradec Králové, Czech Republic*	**LE.59** **PHARMACEUTICAL BIOMARKER ANALYSIS: TIME-CONTROLLED ONLINE SPE-HPLC-MS/MS FOR N-ACYLETHANOLAMINE QUANTIFICATION IN LIPID-RICH BIOLOGICAL MATRICES** *Valentina Greco* *University of Catania, Catania, Italy*
10:35	**LE.52** **AUTOMATED PROCESSING OF SERUM PROTEINS FROM DRIED PLASMA SPOTS** *Helena Hrušková* *Institute of Analytical Chemistry of the CAS, Brno, Czech Republic*	**LE.60** **DETECTION OF TRACE LEVELS OF FENTANYL IN URINE USING SEMI-AUTOMATED CAPILLARY SPE-LC ANALYSIS** *Samuel Foster* *Axcend, Lehi, USA*

10:50	**LE.53** **CENTRIFUGATION-ASSISTED MICRO-EXTRACTION USING FUNCTIONALIZED GLASS BEADS FOR RAPID HPLC ANALYSIS** *František Švec* *Charles University, Hradec Kralove, Czech Republic*	**LE.61** **CHARACTERIZING HYDROCARBON CONTENT OF WASTE PLASTIC PYROLYSIS STREAMS BY GC-VUV: A TRILATERAL ENDEAVOR** *Alex Hodgson* *VUV Analytics, Inc., USA*
11:05 – 12:30	**Coffee Break – Vendor Seminars – Exhibition – Posters M, O**	
11:20 – 12:20	**Room Garda** **Seminar** **MERCK**	**Room Dolomiti** **Seminar** **SRA Instruments** **Large-Volume/Cool-on-Column injection and LC-GC hyphenation: how to achieve regulations requirements by significantly reduced solvent consumption and automating sample prep** *Andrea Carretta, Daniela Peroni, Fabio Stropeni*
	Room Riva **Seminar** **JEOL**	
12:30 – 13:30	**Capillary LC Separations - On the Horizon and Beyond** **Room Dolomiti** **Organized by James Grinias, Rowan University (USA) and Milton Lee, Brigham Young University (USA)**	
12:30 – 14:00	**Lunch Break**	
14:00 – 15:35	**ISCC Session 11 – MINIATURIZED SAMPLE PREPARATION 1** **Room Garda** *Chairpersons:* *Elia Psillakis, Technical University of Crete, Greece* *Victoria Samanidou, Aristotle University of Thessaloniki, Greece*	**ISCC Session 12 – METABOLOMICS AND ARTIFICIAL INTELLIGENCE** **Room Dolomiti** *Chairpersons:* *Marina Russo, University of Messina, Italy* *Robert Kennedy, University of Michigan, USA*
14:00	**LE.62** **MINIATURIZED AND SELECTIVE EXTRACTION DEVICES FOR TRACE ANALYSIS OF TARGET COMPOUNDS IN COMPLEX SAMPLES** *Valérie Pichon[1,2]* *[1]Sorbonne University, Paris, France* *[2]ESPCI, Paris, France*	**LE.68** **TOWARDS THE THIRD GENERATION OF NEW METABOLOMICS ANALYSIS TECHNOLOGY** *Guowang Xu* *Dalian Institute of Chemical Physics, Dalian, China*
14:20	**LE.63** **MAKING OFFICIAL ANALYTICAL METHODS MORE SUSTAINABLE USING SPME AS AN ALTERNATIVE SAMPLE PREPARATION TECHNIQUE** *Frank Michel* *Merck KGaA, Taufkirchen, Germany*	**LE.69** **ADVANCING TARGETED AND UNTARGETED HIV METABOLOMICS USING MICRO PILLAR ARRAY COLUMN-BASED NANO-LC-HRMS WORKFLOWS** *Lander Iterbeke* *Ghent University, Ghent, Belgium*
14:35	**LE.64** **NEXT-GENERATION NANOFIBROUS SORBENTS – EXPLOITING MODIFICATIONS AND HYBRID NANOFIBERS COUPLED WITH LIQUID CHROMATOGRAPHY** *Dalibor Šatínský* *Faculty of Pharmacy, Hradec Králové, Czech Republic*	**LE.70** **AUTOMATED SEQUENTIAL DERIVATISATION FOR HUMAN BLOOD-BASED GC-HRMS METABOLOMICS** *Akrem Jbebli* *Masaryk University, Brno, Czech Republic*

14:50	**LE.65** **ADVANCED SORBENT PHASES FOR MINIATURIZED SAMPLE PREPARATION TECHNIQUES APPLIED TO THE DETERMINATION OF ANTIBIOTICS IN BOVINE MILK SAMPLES BY LC–MS/MS** *Andréa Rodrigues Chaves* *Universidade Federal De Goiás, Goiânia, Brazil*	**LE.71** **AN INTEGRATED APPROACH BASED ON GC×GC-HRMS, SFC-HRMS, UHPLC-HRMS, AND MACHINE LEARNING FOR QUALITY ASSESSMENT OF COSMETIC PACKAGING** *Nicolo' Riboni* *University of Parma, Parma, Italy*
15:05	**LE.66** **STILL STIRRED, NOT SHAKEN? NEW DEVELOPMENTS IN STIR BAR SORPTIVE EXTRACTION** *Christophe Devos* *RIC Group, Kortrijk, Belgium*	**LE.72** **AUTONOMOUS SUMMARIES OF SAMPLE MIXTURES IN SELF-ORGANIZING MAPS** *Stefan Böhmdorfer* *BOKU University, Tulln, Austria*
15:20	**LE.67** **GEDI: A NOVEL INDEX TOWARDS SUSTAINABLE ANALYTICAL METHOD DEVELOPMENT** *Natasa Kalogiouri* *Aristotle University of Thessaloniki, Thessaloniki, Greece*	**LE.73** **HIGH RESOLUTION-ELECTROSPRAY-TANDEM MASS SPECTROMETRY (HR-ESI-MS/MS) SPECTRAL DATABASE DEVELOPMENT OF MEDICINAL PLANTS METABOLOME FOR THEIR RAPID AND ACCURATE IDENTIFICATION** *Syed Ghulam Musharraf* *H.E.J. Research Institute of Chemistry, Karachi, Pakistan*
15:35 – 16:55	**Coffee Break – Vendor Seminars – Exhibition – Posters N**	
15:45 – 16:45	**Room Garda** **Seminar** **WATERS** **Volatile PFAS: Benefit from Atmospheric pressure GC (APGC™) coupled to a tandem mass spectrometer for highly selective and sensitive analysis of volatile and neutral PFAS at sub ppt levels** **Pesticides: Improve Gas Chromatography Analysis of Pesticide Residues Making Use of Atmospheric Pressure Chemical Ionization.** **Dioxins: Discover the four reasons why APGC will change the game for your pesticide and dioxin analysis.** *Andrea Perissi*	**Room Dolomiti** **Seminar** **SEPSOLVE/MARKES INTERNATIONAL**
15:45 – 16:45	**Room Riva** **Seminar** **F-DGSi** **The best green solution: 100% autonomous for GC & GC/GC- Thanks to hydrogen and liquid nitrogen generators - Applications and Perspectives.** *Fabienne Palge, Damien Steyer, David Benanou*	
16:55 – 18.25	**ISCC Young Scientists 3** **Room Garda** *Chairpersons:* *Francesca Rigano, University of Messina, Italy* *Danilo Corradini, CNR - Consiglio Nazionale delle Ricerche, Italy*	**ISCC Young Scientists 4** **Room Dolomiti** *Chairpersons:* *Anna Laura Capriotti, Sapienza University of Rome, Italy* *Danilo Sciarrone, University of Messina, Italy*

16:55	**YLE.19** **PROGRESS IN HPLC-XRF AND THE POTENTIAL OF MINIATURISATION FOR SENSITIVITY IMPROVEMENTS** *Gaëlle Spileers* *Ghent University,Ghent, Belgium*	**YLE.28** **CLICK CHEMISTRY FOR THE DEVELOPMENT OF NOVEL SORBENTS FOR SOLID-PHASE MICROEXTRACTION** *Carmela Maria Montone* *Sapienza University of Rome, Rome, Italy*
17:05	**YLE.20** **LC-LEI-HRMS TO UNVEIL PAHS PHOTO-OXIDATION PHENOMENA IN A MARS-LIKE ENVIRONMENT** *Tommaso Grazioso* *University of Urbino, Urbino, Italy*	**YLE.29** **MESOPOROUS CARBON-BASED STIR-BAR SORPTIVE MICROEXTRACTION FOR TRACE PESTICIDE ANALYSIS IN WATER BY GC/MS** *Gabriel Pardini Coelho* *Universidade Federal De Minas Gerais, Belo Horizonte, Brazil*
17:15	**YLE.21 Genzo Shimadzu selected young lecture** **AN INNOVATIVE CAPILLARY LIQUID CHROMATOGRAPHY-DIODE ARRAY DETECTOR COUPLED TO MASS SPECTROMETRY METHOD FOR THE SEPARATION OF BIOACTIVE ANTHOCYANINS FROM SLOE (PRUNUS SPINOSA L.) LIQUEUR RESIDUES** *Sandra Rodríguez-Blázquez* *Complutense University of Madrid, Madrid, Spain*	**YLE.30** **CHARACTERIZATION OF THE VOLATILOME IN NOVEL PROTEIN SOURCES USING DIFFERENT FORMATS OF SOLID PHASE MICROEXTRACTION COUPLED TO GAS CHROMATOGRAPHY/MASS SPECTROMETRY** *Lorenzo Cucinotta* *University of Waterloo, Waterloo, Canada*
17:25	**YLE.22** **PREDICTING PHENOLIC RETENTION IN CAPILLARY LC: QSRR MODELS FOR RELIABLE IDENTIFICATION** *Roberto Laganà Vinci* *Chromaleont S.r.l, Messina, Italy*	**YLE.31** **NEAR-REAL-TIME MASS SPECTROMETRY WITH THE POWER OF GC SEPARATION? AN AIRBORNE TD-GC-TOFMS FOR CONTINUOUS ANALYSIS OF TRACE VOC IN AIR WITH A 60 SECOND INTEGRATED TEMPORAL RESOLUTION.** *Tara Murphy* *University of York, York, United Kingdom*
17:35	**YLE.23** **ENHANCING COVERAGE FOR ORGANELLE-LEVEL METABOLOMICS BY MICROBORE HILIC-HRMS** *Danila La Gioia* *University of Salerno, Fisciano, Italy*	**YLE.32** **ADVANCED GAS CHROMATOGRAPHIC TECHNIQUES FOR VOCS CHARACTERIZATION IN CULTURAL HERITAGE SITES** *Francesca Cannizzaro* *University of Messina, Messina, Italy*
17:45	**YLE.24** **OPTIMIZATION OF LC-Q-TOF MASS SPECTROMETRY AND CHROMATOGRAPHIC PARAMETERS FOR THE DEVELOPMENT OF AN INNOVATIVE METHOD FOR THE DETERMINATION OF PFAS IN FOOD CONTACT MATERIAL (FCMS)** *Daniel Bona* *University of Genoa, Genoa, Italy*	**YLE.33** **FLOWING INSIGHTS: AUTOMATED MICROFLUIDIC ENZYME SCREENING WITH ONLINE HPLC-MS** *Sanjay Lama* *Leipzig University, Leipzig, Germany*
17:55	**YLE.25 Genzo Shimadzu selected young lecture** **OVERCOMING COMPATIBILITY BARRIERS IN ORTHOGONAL 2DLC: A ROBUST IP-RPLC/IP-HILIC PLATFORM FOR IN-DEPTH OLIGONUCLEOTIDE PROFILING** *Enrico Taglioni* *Sapienza University of Rome, Rome, Italy*	**YLE.34** **FLUOROTELOMER ALCOHOL REMOVAL BY MCM-41: A GC–MS STUDY** *Francesco Pio Paci* *University of Ferrara, Ferrara, Italy*

18:05	**YLE.26** **MODULAR MICROFLUIDICS AS A KEY TECHNOLOGY IN MODERN ANALYTICS: SHOWCASING CHIP-BASED SFC-MS AND SFC-IMS** *Julius Heinrich Schwieger* *Leipzig University, Leipzig, Germany*	**YLE.35 Genzo Shimadzu selected young lecture** **GREEN ANALYTICAL METHODS FOR EXTRACTION-CHROMATOGRAPHY BY MEANS OF SUPERCRITICAL FLUIDS AND BIO-SOLVENTS** *Cristian Reale* *University of Messina, Messina, Italy*
18:15	**YLE.27** **MICROBORE-UHPLC-4D-TIMS FOR IMPROVED UNTARGETED LIPIDOMICS OF PATIENT DERIVED ORGANOIDS** *Fabrizio Merciai* *University of Salerno, Fisciano, Italy*	**YLE.36** **HOLLOW-FIBER FLOW FIELD-FLOW FRACTIONATION AS A SWISS ARMY KNIFE FOR ADDRESSING KEY CHALLENGES IN PHARMACEUTICAL AND NANOSCIENCE APPLICATIONS** *Stefano Giordani [1,2]* *[1] Byflow S.r.l., Bologna, Italy* *[2] University of Bologna, Bologna, Italy*

Friday, May 22, 2026

09:00 – 10:20	**ISCC Session 13 – NATURAL PRODUCTS, FOOD, FLAVOURS AND FRAGRANCES** **Room Garda** *Chairpersons:* *Paola Dugo, University of Messina, Italy* *Cecilia Cagliero, University of Turin, Italy*	**ISCC Session 14 – MINIATURIZED SAMPLE PREPARATION 2** **Room Dolomiti** *Chairpersons:* *Janusz Pawliszyn, University of Waterloo, Canada* *Verónica Pino, University of La Laguna, Spain*
09:00	**LE.74** **THE APPLICATION OF DIFFERENT CHROMATOGRAPHIC METHODS TO THE STUDY OF TROPICAL VEGETAL BIODIVERSITY** *Elena E. Stashenko* *Universidad Industrial de Santander, Bucaramanga, Colombia*	**LE.79** **NEW MATERIALS FOR THE SELECTIVE EXTRACTION OF EMERGING CONTAMINANTS FROM ENVIRONMENTAL SAMPLES** *Rosa Maria Marcé* *Universitat Rovira I Virgili, Tarragona, Spain*
09:20	**LE.75** **CHARACTERIZATION OF YLANG-YLANG KEY ODORANTS BY GC-OLFACTOMETRY EXPERIMENTS AND REFORMULATION STUDIES** *Nicolas Baldovini* *Université Côte d'azur, Nice, France*	**LE.80** **AROMA PROFILING AS A TOOL TO SUPPORT FOOD SAFETY AND QUALITY** *Tatiana Cucu* *RIC Group, Kortrijk, Belgium*
09:35	**LE.76** **ARTIFACT FORMATION IN THE INJECTOR – AN UNDERESTIMATED PROBLEM IN GC ANALYSIS OF ODORANTS** *Martin Steinhaus* *[1]Leibniz Institute for Food Systems Biology at the Technical University of Munich, Freising, Germany* *[2]Technical University of Munich, Garching, Germany*	**LE.81** **USING MULTIPLE CAPILLARY GC COLUMNS OF INCREASING PHASE STRENGTHS IN SERIES TO PERFORM HEADSPACE EXTRACTIONS PRIOR TO SPLITLESS GCMS INJECTION AND ANALYSIS** *Daniel B. Cardin* *Entech Instruments, Simi Valley, USA*
09:50	**LE.77** **DRYING-INDUCED CHANGES IN MICROBIAL LOAD AND VOLATILE ORGANIC COMPOUNDS OF SHRIMP: A COMPARISON OF SC-CO_2, HOT-AIR, AND FREEZE DRYING** *Eugenio Aprea* *University of Trento, San Michele all Adige, Italy*	**LE.82** **DEVELOPMENT OF A CAPILLARY MONOLITHIC OLIGOSORBENT–HPLC–MS METHOD FOR QUANTIFYING ALZHEIMER'S DISEASE BIOMARKERS IN BIOLOGICAL FLUIDS** *Israel Donizeti de Souza* *ESPCI, Paris, France*
10:05	**LE.78** **NAVIGLIO EXTRACTOR®: MEDICINAL PLANT EXTRACTS FOR RAPID PRODUCTION OF SUPPLEMENTS AND BEVERAGES. INTRODUCING THE NEW BITTER LIQUEUR: "AMARO DELLE DONNE."** *Daniele Naviglio* *University of Naples Federico II, Naples, Italy*	**LE.83** **APPLICATION OF MINIATURISATION OF SAMPLE PREPARATION FOR DETERMINATION OF MYCOTOXIN CONTAMINATION OF SELECTED AROMATIC PLANTS** *Marijana Sokolovic* *Croatian Veterinary Institute, Zagreb, Croatia*
10:20 – 10:50	**Coffee Break – Exhibition**	
10:50 – 12:10	**ISCC Session 15 – INSTRUMENTATION** **Room Garda** *Chairpersons:* *Achille Cappiello, University of Urbino Carlo Bo, Italy* *Stig Pedersen-bjergaard, University of Oslo, Norway*	**ISCC Session 16 – ELECTROMIGRATION METHODS** **Room Dolomiti** *Chairpersons:* *Brett Paull* *University of Tasmania, Hobart, Australia* *Peter Q. Tranchida, University of Messina, Italy*

10:50	**LE.84** **WHOLE COLUMN IMAGING cIEF COUPLED TO MS FOR CHARACTERIZATION OF NATIVE PROTEINS** *Janusz Pawliszyn* *University of Waterloo, Waterloo, Canada*	**LE.89** **EMERGING APPLICATIONS OF CE-MS AND MULTIDIMENSIONAL LC-MS IN BIOPHARMACEUTICAL ANALYSIS** *Koen Sandra* *RIC Group, Kortrijk, Belgium*
11:10	**LE.85** **GC-COMBUSTION-MS AS A UNIVERSAL AND ELEMENT-SELECTIVE DETECTOR FOR THE QUANTITATIVE CHARACTERIZATION OF HETEROATOM-CONTAINING COMPOUNDS IN COMPLEX MATRICES** *Pierre Giusti[1,2]* *[1]Totalenergies, Rogerville, France* *[2]International Joint Laboratory-ic2mc: Complex Matrices Molecular Characterization, Rogerville, France*	**LE.90** **FINGERPRINTING OF SECONDARY METABOLITES OCCURRING IN SELENIUM ENRICHED CABBAGE BY CAPILLARY ZONE ELECTROPHORESIS** *Danilo Corradini* *CNR - Consiglio Nazionale delle Ricerche, Montelibretti, Italy*
11:25	**LE.86** **GC-MS WITH A SUPERSONIC MOLECULAR BEAM INTERFACE – MOLECULAR IONS ENHANCEMENT AND ITS BENEFITS** *Alexander Fialkov* *Tel Aviv University, Tel Aviv, Israel*	**LE.91** **METHOD OPTIMIZATION FOR CAPILLARY ELECTROPHORESIS USING DESIGN OF EXPERIMENTS (DOE)** *Andreas Zemann* *University Innsbruck, Innsbruck, Austria*
11:40	**LE.87** **A TRUE NON-RADIOACTIVE ALTERNATIVE TO CLASSICAL ELECTRON CAPTURE DETECTORS: HERE DEMONSTRATED FOR HALOGEN-SPECIFIC TRACE ANALYSIS** *Maximilian Johannes Kueddelsmann[1,2]* *[1]Hummex Analytics Gmbh, Hannover, Germany* *[2]Leibniz University Hannover, Hannover, Germany*	**LE.92** **CE-MS METABOLOMIC AND LC-MS PROTEOMIC ANALYSES OF BREAST CANCER EXOSOMES REVEAL ALTERATIONS IN PURINE AND CARNITINE METABOLISM** *Maxim Berezovski* *University of Ottawa, Ottawa, Canada*
11:55	**LE.88** **NOVEL DEVELOPMENTS IN ENANTIO-SELECTIVE DETECTION OF CHIRAL MOLECULES BY LASER-BASED MASS SPECTROMETRY - PHOTOELECTRON CIRCULAR DICHROISM** *Maurice H.M. Janssen* *Massspecpecd BV, Enschede, The Netherlands*	**LE.93** **WHEN SURFACES LIE: USING CAPILLARY SEPARATIONS TO VALIDATE MOLECULAR RECOGNITION** *Sergey N. Krylov* *York University, Toronto, Canada*
12:10 – 12:50	**Closing Address 44th ISCC Room – Garda** **Chairperson:** *Luigi Mondello, University of Messina, Italy* *Pat Sandra, RIC Group, Belgium* **Presentation of the:** **GENZO SHIMADZU Oral Awards (Young Scientists)** **ABC Springer Best Poster Award (Young Scientists)** **Analytical Methods RSC Best Poster Award (Young Scientists)** **Green Analytical Chemistry Elsevier Best Poster Awards** **Molecules MDPI Best Oral ISCC Award (Young Scientists)** **Closing Address**	
12:50	**Farewell Cocktail, offered by Waters Corporation, Conference Center**	

A. CAPILLARY GAS CHROMATOGRAPHY

A.01 GAS CHROMATOGRAPHIC AND MICROBIOLOGICAL ANALYSIS OF 25-YEAR-OLD LEMON ESSENTIAL OILS: WHAT TO EXPECT?

Daniele Naviglio[1], Paolo Trucillo[2], Alessandro Salvati[1], Federica Carraturo[3], Michela Salamone[3], Marco Guida[3], Rita Pagano[1], Armando Zarrelli[1], Monica Gallo[4]
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[2] University of Naples Federico II, DICMAPI, Piazzale Vincenzo Tecchio, 80, 80125 Naples, Italy
[3] University of Naples Federico II, Department of Biology, Via Cintia N.4 - Monte Sant'angelo Complex, 80126 Naples, Italy
[4] University of Naples Federico II, Department of Molecular Medicine and Medical Biotechnology, Via Pansini 5, 80131 Naples, Italy

A.02 FLOW-FIELD THERMAL GRADIENT GC: BALANCING SPEED, RESOLUTION AND ENERGY EFFICIENCY

Lina Mikaliunaite[1], Laura Mcgregor[2], Matt Edwards[3], Anthony Buchanan[2], Ricardo Roque[2], James Ogden[2], Nick Bukowski[2], Peter Boeker[4]
[1] Markes International, 1000B Central Park, Western Avenue, CF31 3RT Bridgend, United Kingdom
[2] Sepsolve Analytical, 4 Swan Court, PE78GX Peterborough, United Kingdom
[3] Sepsolve Analytical, 1060 Guelph St, N2B 2E3 Kitchener, Canada
[4] University of Bonn, Käthe-kümmel-str. 1, 51177 Bonn, Germany

A.03 RELATIONSHIP BETWEEN RETENTION PARAMETERS AND RETENTION INDICES IN GAS CHROMATOGRAPHY

Jan Leppert, Tillman Brehmer, Peter Boeker, Matthias Wüst
University of Bonn, Institute of Nutritional and Food Sciences, Käthe-kümmel-strasse 1, 53115 Bonn, Germany

A.04 PREPARATIVE MULTIDIMENSIONAL GAS CHROMATOGRAPHY FOR THE ISOLATION OF SPECIFIC TERPENE FAMILIES FROM SPICES' ESSENTIAL OILS
OILS

Danilo Sciarrone[1], *Lorenzo Cucinotta*[1], *Marta Pavarino*[2], *Francesca Cannizzaro*[1], *Barbara Sgorbini*[2], *Patrizia Rubiolo*[2], *Luigi Mondello*[1,3]
[1] University of Messina, Messina Institute of Technology, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Viale G. Palatucci 13, 98168 Messina, Italy
[2] University of Turin, Department of Drug Science and Technology, Via Pietro Giuria 9, 10125 Turin, Italy
[3] Chromaleont S.r.l., C/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale G. Palatucci, 13, 98168 Messina, Italy

A.05 PROMOTING THE TRANSITION AWAY FROM FOSSIL FUELS IN GAS CHROMATOGRAPHY: NITROGEN AS ALTERNATIVE CARRIER GAS FOR GC ANALYSIS OF ESSENTIAL OILS

Filippo Alibrando[1], *Federica Vento*[2], *Ivana Lidia Bonaccorsi*[2], *Giuseppe Micalizzi*[2], *Luigi Mondello*[1,2]
[1] Chromaleont S.r.l., C/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale G. Palatucci, 13, 98168 Messina, Italy
[2] University of Messina, Messina Institute of Technology, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Viale G. Palatucci 13, 98168 Messina, Italy

A.06 HEADSPACE SPME-GC-MS CHARACTERIZATION OF MUSHROOMS AND AGRO-INDUSTRIAL BY-PRODUCTS FOR SUSTAINABLE FOOD PROTEIN DEVELOPMENT

Giorgia Botta, Giorgio Felizzato, Eloisa Bagnulo, Giulia Tapparo, Andrea Caratti, Chiara Cordero, Erica Liberto
University of Turin, Department of Drug Science and Technology, Via Pietro Giuria 11, 10125 Torino, Italy

A.07 IMPORTANCE OF GC COLUMN DEACTIVATION TECHNOLOGY FOR THE ANALYSIS OF CHALLENGING ANALYTES

Sandra Ruiz Perez[1], Erika Pack[2], Victoria Zeger[2], Chris English[2], Ramkumar Dhandapani[2]
[1] Restek Gmbh, Schaberweg 23, 61348 Bad Homburg Vor Der Höhe, Germany
[2] Restek Corporation, Benner Circle 110, PA 16823 Bellefonte, Germany

A.08 COMPARISON OF VOCS PROFILE IN CHAI MASALA SPICE BLEND USING VARIOUS COLUMN SETUPS WITH COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY

František Dugovič, Olga Vyviurska, Ivan Špánik
Slovak University of Technology in Bratislava, Faculty of Chemical and Food Technology, Institute of Analytical Chemistry, Radlinského 9, 812 37 Bratislava, Slovakia

A.09 CAN VOLATILES ACT AS BIOMARKERS IN INSECTS? STRATEGIES FOR MICROEXTRACTION AND VOLATILOME ANALYSIS BY GC-MS FROM ANDEAN ORCHID BEES.

Sebastian Alvarez Diaz[1], Juan Camilo Dorado Suárez[2], Jorge Alberto Molina Escobar[2], Chiara Carazzone[1]
[1] Universidad De Los Andes, Chemistry Department / Laboratory of Advanced Analytical Techniques in Natural Products (LATNAP), Ave. 1 #18A - 12, Bogotá, 111711 Bogotá D.C, Colombia
[2] Universidad De Los Andes, Biology Department / CENTRO DE INVESTIGACIONES EN MICROBIOLOGÍA Y PARASITOLOGÍA TROPICAL (CIMPAT), Ave. 1 #18A - 12, Bogotá, 111711 Bogotá D.C, Colombia

A.10 THE IMPACT OF LINER GEOMETRY ON THE VAPORIZATION PROCESS IN GC INJECTION

Flavio Antonio Franchina, Cristina Meo, Allan Polidoro, Monica Romagnoli
University of Ferrara, Via Luigi Borsari 46, 44121 Ferrara, Italy

A.11 DETAILED CHARACTERISATION OF SOUTH AFRICAN OLD VINE CHENIN BLANC AROMA USING MULTIPLE SAMPLE PREPARATION METHODS IN COMBINATION WITH GC-MS AND GC×GC-HR-TOFMS AND CORRELATION TO SENSORY DATA

Sithandile Ngxangxa[1,2], Andreas Tredoux[1], Andre De Villiers[1]
[1] University of Stellenbosch, Chemistry and Polymer Science, De Beers Rd, Merriman Avenue, 7600 Stellenbosch, South Africa
[2] University of Johannesburg, Chemical Sciences, Kingsway Avenue, 2006 Johannesburg, South Africa

A.12 PRINTING REGIMES AND THEIR INFLUENCE ON POTENTIAL MIGRANTS IN FOOD CONTACT MATERIAL

Lara Skef, Erich Leitner
Graz University of Technology, Stremayrgasse 9, 8010 Graz, Austria

A.13 IMPACT OF THE 2025 USP UPDATE ON THE SELECTIVITY OF G43 COLUMNS: RESOLUTION OF THE CRITICAL PAIR PYRIDINE-CYCLOPENTYL METHYL ETHER USING AN ULTRA INERT 6% CYANOPROPYL PHENYL 94% DIMETHYLPOLYSILOXANE GC COLUMN

Gustavo Serrano Izaguirre[1], Victor Alfonso Niño Ramirez[2]
[1] Agilent Technologies, CSD, 2850 Centerville Rd., 19808 Wilmington, United States (US)
[2] Khymós, Carrera 70 No 108, 5 Bogota, Colombia

A.14 RELATIVE RESPONSE FACTOR IN GAS CHROMATOGRAPHY-FLAME IONIZATION DETECTOR: A COMPLEX TASK

Giuseppe Micalizzi[1], Saeed Ahmed[1], Alessia Tropea[1], Luigi Mondello[1,2]
[1] University of Messina, Messina Institute of Technology, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Viale G. Palatucci 13, 98168 Messina, Italy
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B. NANO AND CAPILLARY LIQUID CHROMATOGRAPHY

B.01 COMPACT CAPILLARY LC FOR THE ANALYSIS OF SAMPLES WITH COMPLEX MATRICES

Eliza Hanson[1], Dakota Neuls[1], Noelle Simmons[1], John Boughton[1], Christopher Piccolo[1], Samuel Foster[2], Matthew Morse[2], Elisabeth Gates[2], Milton Lee[2], James Grinias[1]
[1] Rowan University, Department of Chemistry & Biochemistry, 201 Mullica Hill Road, 08028 Glassboro, NJ, United States (US)
[2] Axcend, 3301 N. Thanksgiving Way #175, 84048 Lehi, UT, United States (US)

B.02 CAPILLARY LC-DAD-MS AS A POWERFUL TOOL FOR THE INDIVIDUAL PROFILING OF BIOACTIVE COMPOUNDS IN AGRI-FOOD WASTE EXTRACTS

Sandra Rodríguez-blázquez, José Ignacio Guerrero-blanco, Esther Gómez-mejía, Noelia Rosales-conrado
Complutense University of Madrid, Department of Analytical Chemistry, Avenida De Séneca, 2, 28040 Madrid, Spain

B.03 DEVELOPMENT OF HARDWARE AND SOFTWARE APPROACHES TO COMPREHENSIVE CAPILLARY 2D-LC

Deklin Parker[1], Samuel Foster[1], James Grinias[1], Dwight Stoll[2]
[1] Rowan University, Department of Chemistry and Biochemistry, 201 Mullica Hill Rd, 08028 Glassboro, United States (US)
[2] Gustavus Adolphus College, 800 W College Ave, 56082 St Peter, United States

B.04 AUTOMATED ONLINE SPE PAIRED WITH CAPILLARY LC-UV SYSTEM FOR LOW CONCENTRATION DETECTION OF ILLICIT DRUGS IN URINE

John Boughton[1], *Samuel Foster*[2], *Tai Truong*[2], *Milton Lee*[2,3], *James Grinias*[1]
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[2] Axcend Corp, 3301 N Thanksgiving Way, Suite 175, 84043 Lehi, UT, United States (US)
[3] Brigham Young University, Brigham Young University, 84602 Provo, UT, United States (US)

B.05 PREPARATION OF CAPILLARY LC COLUMNS IN TUBE-IN-MANIFOLD MICROFLUIDIC DEVICES

*Christopher Piccolo*1, *Michael Keller*[2], *Dan J Czarnecki*[3], *Tom Austin*[2], *Graham Shelver*[2], *James P Grinias*[1]
[1] Rowan University, Department of Chemistry and Biochemistry, 201 Mullica Hill Road, 08028 Glassboro, United States (US)
[2] IDEX Health and Science, 600 Park Ct, 94928 Rohnert Park, United States (US)
[3] IDEX Health and Science, 110 Halcyon Dr, 06010 Bristol, United States (US)

B.06 IMPLEMENTING CAPILLARY LC INTO RADIOPHARMACEUTICAL WORKFLOWS

Samuel Foster[1], *Richard Coelho*[2], *Warren Samms*[1], *Milton Lee*[1]
[1] Axcend, 3301 N. Thanksgiving Way, Suite 175 Lehi,, 84048 Lehi, United States (US)
[2] Perceptive, 119 Fourth Avenue, 02494 Needham, United States

B.07 FIVE-MINUTE MICRO-LC METHODS FOR GREEN ANALYSIS OF XENOBIOTIC AND BIOACTIVE COMPOUNDS IN FOODSTUFFS

Katia Arena[1], *Roberto Laganà Vincí*[2], *Francesca Rigano*[1], *Patrik Appelblad*[3], *Luigi Mondello*[1,2]
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[2] Chromaleont s.r.l., c/o Department of Chemical, Biological Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy
[3] Analytical Chemistry R&D, Merck Life Science AS, Drammensveien 123, 0277 Oslo, Norway

B.08 HAND-PORTABLE CAPILLARY LIQUID CHROMATOGRAPHY FOR THE DETERMINATION OF PARABENS IN COSMETICS USING POROUS GRAPHITIC CARBON STATIONARY PHASES

Francesca Rigano[1], *Roberta La Tella*[2], *Michael Ye*[3], *Patrik Appelblad*[4], *Luigi Mondello*[1,2]
[1] University of Messina, Messina Institute of Technology c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Viale G. Palatucci, 13, 98168 Messina, Italy
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[4] Merck Life Science, Analytical Chemistry R&D, Drammensveien 123, 0277 Oslo, Norway

C. COLUMN TECHNOLOGY

C.01 INTRODUCTION AND CHARACTERIZATION OF HALOGEN BONDING LIQUID CHROMATOGRAPHY: SEPARATIONS BASED ON NOVEL CHEMICAL INTERACTIONS AND MECHANISMS

Christopher P Palmer, Orion Berryman, Alexis Parker, Lillian Vaughn, Ariful Islam, Melia Mcsherry
University of Montana, Department of Chemistry and Biochemistry, 32 Campus Dr, 59812 Missoula, United States (US)

C.02 ENGINEERING ULTRA-LOW-BLEED, ULTRA-INERT GC COLUMNS FOR SUPERIOR SENSITIVITY, STABILITY, AND REPRODUCIBILITY

Ngoc-a Dang[1], *Frans Biermans*[1], *Jean-baptiste Masclef*[1], *Allen K. K. Vickers*[2], *Liying Yu*[2], *Ashlee Gerardi*[3]
[1] Agilent Technologies, Research and Development, Herculesweg 8, 4338 PL Middelburg, Netherlands
[2] Agilent Technologies, Global Operations, Blue Ravine Road 91, 95630-4720 CA Folsom, United States Of America
[3] Agilent Technologies, Marketing, 2850 Centerville Rd, 19808 DE Wilmington, United States Of America

C.03 RECENT ADVANCEMENTS IN NEW POLYETHYLENE GLYCOL (WAX) GC COLUMNS WITH ULTRA-LOW BLEED AND ULTRA-INERT CHARACTERISTICS FOR IMPROVED RESULT RELIABILITY AND COLUMN LIFETIME

Ngoc-a Dang[1], *Frans Biermans*[1], *Jean-baptiste Masclef*[1], *Allen K. Vickers*[2], *Liying Yu*[2], *Ashlee Gerardi*[3], *Amanda Mcquay*[4], *Changjun Fan*[4]
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[3] Agilent Technologies, Marketing, Centerville Road 2850, 19808 DE Wilmington, United States (US)
[4] Agilent Technologies, Research and Development, Centerville Road 2850, 19808 DE Wilmington, United States (US)

C.04 FUNDAMENTAL INVESTIGATION OF THE DISPERSION IN RANDOMLY PACKED CHROMATOGRAPHIC MEDIA

Ali Moussa[1], *Bram Huygens*[1], *Alessandra Adrover*[2], *Gert Desmet*[1]
[1] Vrije Universiteit Brussel, Department of Chemical Engineering, Bd De La Plaine 2, 1050 Brussels, Belgium
[2] Sapienza Università di Roma, Dipartimento di Ingegneria Chimica Materiali Ambiente, Via Delle Sette Sale 12, 00184 Rome, Italy

C.05 HIGH-SENSITIVITY GC/MS/MS DETERMINATION OF PHTHALATES IN CONSUMER PLASTICS USING AN ADVANCED ULTRA LOW-BLEED 5% PHENYL GC COLUMN

Gustavo Serrano Izaguirre, Samuel P Haddad
Agilent Technologies, CSD, 2850 Centerville Rd., 19808 Wilmington, United States (US)

C.06 THE INFLUENCE OF BIOINERT COLUMN HARDWARE ON HPLC-MS SEPARATION OF LOW MOLECULAR WEIGHT POLAR METABOLITES

Barbora Tošovská, Petr Česla
University of Pardubice, Department of Analytical Chemistry, Studentská 95, 532 10 Pardubice, Czech Republic

D. HYPHENATED TECHNIQUES

D.01 AZA-PATERNÒ-BÜCHI REACTION FOR THE REGIOISOMER-RESOLVED ANNOTATION OF CHOLESTERYL ESTERS BY NEGATIVE-ION-MODE LC-MS/MS

Andrea Cerrato[1, 2], Aldo Laganà[1,2], Elena Lucà[1], Anna Laura Capriotti[1,2]
[1] Sapienza University of Rome, Department of Chemistry, Piazzale Aldo Moro 5, 00185 Rome, Italy
[2] Interuniversity Consortium INBB - Biostructures and Biosystems National Institute, Via Dei Carpegna 19, 00165 Rome, Italy

D.02 DERIVATIZATION-FREE DOUBLE-BOND ASSIGNMENT OF FATTY ACIDS USING GC-APCI-MS

Sven W. Meckelmann[1], *Paul E. Görs*[1], *Juan F. Ayala-cabrera*[2]
[1] University of Duisburg-essen, Applied Analytical Chemistry, Universitaetsstr. 5, 45141 Essen, Germany
[2] University of the Basque Country, Department of Analytical Chemistry, Sarriena Auzoa, 48940 Leioa, Spain

D.03 BACTERIAL IDENTIFICATION USING PYROLYSIS-GAS CHROMATOGRAPHY-ION MOBILITY SPECTROMETRY

Daniel Röckrath[1], *Moritz Hitzemann*[1], *Alejandra Vargas-valderrama*[2,3], *Arne Höhne*[1], *Stefan Zimmermann*[1]
[1] Leibniz University Hannover, Institute of Electrical Engineering and Measurement Technology, Appelstraße 9a, 30167 Hannover, Germany
[2] Royal Military Academy, Department of Chemistry, Avenue De La Renaissance 30, 1000 Brussels, Belgium
[3] Quartier Major Housiau, Belgian Defence Laboratories (DLD),, Martelarenstraat 181, 1180 Vilvoorde, Belgium

D.04 ENHANCING CONFIDENCE IN HYDROCARBON IDENTIFICATION IN GAS CHROMATOGRAPHY THROUGH COMPLEMENTARY FT-IR INFORMATION AND DEDICATED SPECTRAL LIBRARIES

Sefora Adamovic[1], *Tania Maria Grazia Salerno*[1], *Francesca Rigano*[1], *Luigi Mondello*[1,2]
[1] University of Messina, Messina Institute of Technology c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, former Veterinary School, Viale G. Palatucci 13, 98168 Messina, Italy
[2] Chromaleont S.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale G. Palatucci 13, 98168 Messina, Italy

D.05 GC-MS WITH A SUPERSONIC MOLECULAR BEAM AND ITS ENHANCEMENT TECHNOLOGIES

Alexander Fialkov, Aviv Amirav
Tel Aviv University, School of Chemistry, Haim Levanon 30,, 6997801 Tel Aviv, Israel

D.06 TO DERIVATIZE, OR NOT DERIVATIZE

Federico Cozzi, Adrian Ernst Godfrey, Georg Weingart
Dsm-firmenich, Animal Nutrition & Health R&D Center Tulln, Technopark 1, 3430 Tulln

D.07 MONITORING CHEMICAL INTEGRITY AND ADDITIVE TRANSFORMATION IN IMMERSION COOLING FLUIDS USING COMBINED SPME-GC-QTOF AND GC-FIMS TOF WORKFLOWS

Bibiana Brown[1], *Giles Prentice*[2]
[1] Castrol, Analytical, Technology Centre, RG8 7QR Reading, United Kingdom (UK)
[2] Castrol, Advanced Mobility & Industrial Products, Castrol Technology Centre, RG8 7QR Pangbourne, United Kingdom

D.08 RAPID ONE-STEP UHPLC-HRMS METHOD FOR MULTIRESIDUE PESTICIDE ANALYSIS IN HAZELNUT-BASED BEVERAGES

Giulia Bertini, Nina Felli, Lorenzo Antonelli, Alessandra Gentili
Sapienza Università di Roma, Department of Chemistry, P.zzale Aldo Moro 5, 00185 Rome, Italy

D.09 TENTATIVE IDENTIFICATION OF BRANCHED ALKANE ISOMERS BY GC-FTIR, USING RETENTION INDICES AND CH_3/CH_2 STRETCHING RATIOS

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D.10 GC-BASED ELUCIDATION OF BACTERIAL FATTY ACID PROFILES FOR CHEMOTAXONOMIC CHARACTERIZATION

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D.11 LC-ESI-HRMS AS AN ANALYTICAL STRATEGY TO ASSESS THE OCCURRENCE OF POTENTIALLY TOXIC CYANOGENIC GLYCOSIDES IN EDIBLE MICROGREENS

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D.12 MACHINE LEARNING-ASSISTED UHPLC-Q-ORBITRAP-HRMS METABOLOMICS FOR SAFFRON TRACEABILITY

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D.13 BENCHMARKING UHPLC-MS/MS VS SFC-MS/MS FOR TARGETED GLYCOSPHINGOLIPIDOMICS

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D.14 DRAMATICALLY IMPROVED HYDROCARBONS ANALYSIS USING GC-MS WITH COLD EI

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D.15 LABWARE LEACHABLES AS A SOURCE OF ARTEFACTS IN UNTARGETED METABOLOMICS USING LC-SLIM-QTOF

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D.16 DEVELOPMENT AND VALIDATION OF A GC-MS/MS METHOD FOR THE DETERMINATION OF NITAZENE ANALOGUES

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E. COUPLED AND MULTIDIMENSIONAL TECHNIQUES

E.01 ONLINE LC-GC-QQQMS APPROACH FOR THE DETERMINATION OF 16 PAHS IN EXTRA VIRGIN OLIVE OIL

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E.02 COMPREHENSIVE ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN ROASTED COFFEE ACROSS DIFFERENT GEOGRAPHICAL ORIGINS

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E.03 A MULTI-DIMENSION SWITCH THAT UNIFIES HEART-CUTTING AND COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY

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E.04 A CONFIGURABLE GRADIENT SCORE CRITERION FOR TARGETED LC-MS/MS OPTIMIZATION VIA MIN-MAX NORMALIZATION

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E.05 STATIONARY PHASE SCREENING TO IMPROVE MINERAL OIL HYDROCARBON ANALYSIS

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E.06 COMPREHENSIVE CHEMICAL CHARACTERIZATION OF JASMINUM GRANDIFLORUM L. ABSOLUTE BY INTEGRATED GAS CHROMATOGRAPHIC APPROACHES

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E.07 OPTIMIZATION OF THERMAL DESORPTION TUBE LOADING FOR MULTICLASS VOCS VIA DOE AND GCXGC-TOFMS

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F. SAMPLING SYSTEMS

F.01 A FAST AND SENSITIVE METHOD FOR THE QUANTIFICATION OF DIOXIN LIKE POLYCHLORINATED BIPHENYLS IN RECYCLED MATERIALS USING ARROWS-SPME-GC-MSMS

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F.02 PHASE-TRANSITION-DRIVEN EXTRACTIONS: THERMORESPONSIVE ADSORBENTS FOR SIMPLIFIED, LOW-WASTE ANALYTICAL WORKFLOWS

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F.03 SIMPLIFYING PFAS ANALYSES WITH AN IMPROVED DUAL BED SOLID-PHASE EXTRACTION METHOD

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F.04 A SAMPLING SYSTEM FOR MULTI-COLUMN CAPILLARY GAS CHROMATOGRAPHY USING SILICON PNEUMATIC MICROVALVES

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F.05 INNOVATIVE 3D-PRINTED BIODEGRADABLE AND BIOCOMPATIBLE SWAB (ECOBIOSAL) FOR FORENSIC AND CLINICAL ORAL FLUID ANALYSIS

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F.06 LARGE-VOLUME SPE-BASED SAMPLING DEVICE FOR TRACE-LEVEL SCREENING OF ORGANIC CONTAMINANTS IN ENVIRONMENTAL WATERS

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G. MINIATURIZED SAMPLE PREPARATION

G.01 IN-VIAL ONE-STEP FAME DERIVATIZATION IN BIOLOGICAL SAMPLES FOLLOWED BY GC-FID AND GC×GC-MS ANALYSIS

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G.02 OPTIMIZATION OF VAC-HS-SPME-GC×GC-QMS FOR THE SIMULTANEOUS QUANTIFICATION OF 5-HMF AND VOLATILE PROFILING IN HONEY

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G.03 OPTIMIZED AND MINIATURIZED GC-MS/SPME METHOD FOR ROCKET FUEL IN SOIL

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G.04 UNRAVELLING THE DISPLACEMENT EFFECT COMPLEXITY IN SOLID-PHASE MICROEXTRACTION WHEN USING METAL-ORGANIC FRAMEWORKS AS FIBER COATINGS

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G.05 CHEMICAL CHARACTERIZATION AND ISOLATION OF ANTIOXIDANT MOLECULES IN MEDITERRANEAN MACROALGAE THROUGH CHROMATOGRAPHIC TECHNIQUES

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G.06 ADVANCED SORBENT PHASES FOR MINIATURIZED SAMPLE PREPARATION TECHNIQUES APPLIED TO THE DETERMINATION OF ANTIBIOTICS IN BOVINE MILK SAMPLES BY LC-MS/MS

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G.07 NANOFIBER-BASED SORBENTS: A NOVEL APPROACH FOR EXTRACTION OF ENVIRONMENTAL CONTAMINANTS FROM RIVER WATER

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G.08 ANALYTE-DISCRIMINATING PHYSICO-CHEMICAL DIFFERENCES OF TECHNICAL LIGNINS EXPLOITED IN MICROEXTRACTIONS USING MAGNETIC SUBMICRON-SIZED PARTICLES

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G.09 DIRECT AND AUTOMATED DERIVATIZATION OF LIPIDS IN MEDITERRANEAN MACROALGAE FOR GAS CHROMATOGRAPHIC ANALYSIS AND ENRICHMENT OF OMEGA-3 FATTY ACID ETHYL ESTERS BY SUPERCRITICAL FLUID CHROMATOGRAPHY

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G.10 AUTOMATED AND MINIATURIZED ONLINE QUECHERS EXTRACTION OF PESTICIDES IN CANNABIS SATIVA L. INFLORESCENCES FOLLOWED BY GAS CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY ANALYSIS.

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G.11 SELECTIVE DETERMINATION OF BASIC PHARMACEUTICALS IN RIVER WATER BY STIR-BAR SORPTIVE EXTRACTION USING A METHACRYLIC ACID-FUNCTIONALIZED MATERIAL

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G.12 DISPOSABLE PIPETTE EXTRACTION OPTIMIZATION FOR FLURALANER QUANTIFICATION IN CATTLE PLASMA BY LC-MS/MS

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G.13 DEVELOPMENT OF HYBRID MONOLITHS INCORPORATING METAL-ORGANIC FRAMEWORKS FOR STIR BAR SORPTIVE EXTRACTION COUPLED WITH LIQUID CHROMATOGRAPHY FOR DETERMINATION OF ESTROGEN ENDOCRINE DISRUPTORS IN WATER AND HUMAN URINE SAMPLES

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G.14 MONITORING PESTICIDE RESIDUES IN PLANT-BASED MILKS: A RAPID AND GREEN LLE/LTP-LC-MS/MS APPROACH

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G.15 A NOVEL UHPLC-MS/MS APPROACH FOR THE SENSITIVE QUANTIFICATION OF ISOPROSTANES IN ORAL FLUID WITH MINIMAL SOLVENT CONSUMPTION

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G.16 SPME APPROACHES WITH SELECTIVE SORBENTS FOR LC-MS/MS OR MS/MS METHODS TO DETERMINE NEURODEGENERATIVE DISEASE BIOMARKERS

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H. TRACE AND PFAS ANALYSIS

H.01 ASSESSING THE LEVELS AND POSSIBLE HEALTH RISKS OF NEONICOTINOID PESTICIDE RESIDUES IN MUSHROOMS

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H.02 DETERMINATION OF PERFLUOROALKYL CARBOXYLIC AND SULFONIC ACIDS IN WASTEWATER SAMPLES USING GC/AED

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H.03 QUANTIFICATION OF 7 PRIORITY PFAS ANALYTES IN HUMAN SERUM USING DISPERSIVE MICRO-SOLID PHASE EXTRACTION IN PIPETTE TIPS COMBINED WITH LC-MS/MS

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H.04 INTER-LABORATORY EVALUATION OF PFAS BACKGROUND LEVELS IN PRE-CLEANED XAD-2 POLYSTYRENE/DIVINYLBENZENE RESIN FROM VARIOUS MANUFACTURING BATCHES

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H.05 CRYOGENIC ZONE COMPRESSION AS A FOCUSING STRATEGY FOR ENHANCED DETECTION OF POLYCYCLIC AROMATIC HYDROCARBONS IN EXTRA-VIRGIN OLIVE OIL

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H.06 A FAST AND LOW-SOLVENT CONSUMPTION MULTI-RESIDUE METHOD FOR PESTICIDES ANALYSIS IN TABLE GRAPES BY LP-GC-MS/MS

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H.07 TRACE ELEMENTS IN CLINICAL SAMPLES: FAST AND SIMPLE ANALYSIS USING QUADRUPOLE ICP-MS

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H.08 FULLY AUTOMATED ANALYSIS OF VOLATILE PFAS IN FOOD CONTACT MATERIALS

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H.09 DEVELOPMENT AND CHARACTERIZATION OF A TOLUENE PERMEATION TUBE IN A DYNAMIC GAS GENERATION SYSTEM FOR CALIBRATION OF AN ONLINE GAS CHROMATOGRAPHY AT PPB LEVEL

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H.10 ADSORPTION AND THERMAL DESORPTION STUDIES OF POLYCYCLIC AROMATIC HYDROCARBONS GENERATED BY PERMEATION TUBES ON IRON OXIDE COMPOSITE NANOMATERIALS, USING GAS CHROMATOGRAPHY

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H.11 ONLINE MONITORING OF BIOGENIC VOLATILE ORGANIC COMPOUNDS EMITTED FROM FALL ARMYWORM-INFESTED MAIZE PLANTS WITH TRANSPORTABLE GAS CHROMATOGRAPHY

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H.12 PFAS MEASUREMENTS IN AIR: CHALLENGES, STANDARDS, AND ANALYTICAL INNOVATIONS

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H.13 FULLY AUTOMATED DERIVATIZATION PROTOCOL FOR ULTRA SHORT-CHAIN PFCAS FOR GC-MS/MS DETECTION.

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H.14 TRACE ANALYSIS OF BISPHENOLS AND PARABENS IN HUMAN PLASMA BY RP-HPLC-MS/MS

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H.15 LINEAR RETENTION INDEX NORMALIZATION USING A TRIACYLGLYCEROL HOMOLOGOUS SERIES FOR MULTI-CLASS EXTRACTABLES AND LEACHABLES ANALYSIS BY LC-MS SINGLE QUADRUPOLE

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H.16 SUPPORTING INVESTIGATIONS OF SERIOUS ENVIRONMENTAL CRIMES THROUGH LC-QTOF-HRMS IMPURITY FINGERPRINTING OF CARBOFURAN FORMULATIONS

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H.17 TOWARD ULTRA-TRACE DETECTION: BUCKYPAPER-DRIVEN DISC-SPE INNOVATION

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I. AUTOMATION, INSTRUMENTATION AND ARTIFICIAL INTELLIGENCE

I.01 MODERN APPROACHES TO AUTOMATED ANALYTE ENRICHMENT: ENHANCING TRACE-LEVEL DETECTION IN COMPLEX MATRICES

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I.02 AUTOMATED SPLITLESS GCMS INJECTIONS OF LARGE SOLVENT VOLUMES UP TO 1000UL WHILE LEAVING NON-GC COMPATIBLE COMPOUNDS IN THE SAMPLE VIAL RATHER THAN IN THE GC LINER TO REDUCE MAINTENANCE DURING TRACE LEVEL ANALYSIS

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I.03 APPLICATION OF NEW SORBENT PHASES FOR ASE AND SBSE ON HARD SELTZER PRODUCTS

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I.04 AUTOMATING MATERIAL EMISSIONS TARGETED AND NON-TARGETED DATA ANALYSIS: THE GERSTEL TVOC WIZARD

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I.05 AUTOMATED GC-FID ANALYSIS OF FATTY ACID METHYL ESTERS IN OILS USING FULLY INTEGRATED SAMPLE PREPARATION

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I.06 ROBUST ON-LINE SAMPLE CLEANUP-LC-MS ANALYSIS OF SMALL MOLECULES IN CELL CULTURE MEDIA

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I.07 DECODING COCOA AROMA: LINKING GC-MS FINGERPRINTS TO SENSORY PERCEPTION THROUGH SHAP-INTERPRETABLE MACHINE LEARNING

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I.08 ENHANCING FOOD QUALITY ASSESSMENT THROUGH DATA FUSION AND MACHINE LEARNING: A CASE STUDY ON OFF-FLAVOUR COCOA

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I.09 ON THE INTRINSIC ABILITY OF GAUSSIAN PROCESSES TO FAITHFULLY RECONSTRUCT CHROMATOGRAPHIC RESPONSE FUNCTION SURFACES

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I.10 A CONSTANT-SPLIT-RATIO GC FLOW SPLITTER FOR PARALLEL FID QUANTITATION AND MASS SPECTROMETRIC IDENTIFICATION

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J. ENVIRONMENTAL

J.01 PYROLYSIS-GAS CHROMATOGRAPHY-MASS SPECTROMETRY AS A RELIABLE TOOL FOR THE IDENTIFICATION AND QUANTIFICATION OF MICROPLASTICS IN WATER AND FOOD SAMPLES

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J.02 GREEN GC-MS METHOD FOR THE SIMULTANEOUS DETERMINATION OF PAHS AND PCBS IN DIGESTED SLUDGE AND ASSOCIATED RISK ASSESSMENT

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J.03 GREEN SOLVENTS: AN ENVIRONMENTALLY FRIENDLY ALTERNATIVE FOR REVERSED LIQUID CHROMATOGRAPHY

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J.04 DEVELOPMENT OF A CHARACTERISATION METHOD FOR D13CINORG ISOTOPIC SIGNATURE USING HEADSPACE GC-C-IRMS COUPLING IN AN ESTUARINE CONTEXT

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J.05 MICROWAVE SYNTHESIS OF TPBD-CH3 COF AS MICRO-DISPERSIVE SOLID PHASE EXTRACTION SORBENTS COMBINED WITH GC-MS FOR FAST, SENSITIVE AND SELECTIVE DETECTION OF PHENOLIC ENDOCRINE DISRUPTORS

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J.06 USE OF A NEW FREE SOFTWARE PACKAGE FOR CHROMATOGRAPHIC DATA PROCESSING IN SOIL PESTICIDE ANALYSIS

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J.07 NON-TARGET SCREENING, SUSPECT SCREENING AND TARGET ANALYSIS OF UV ABSORBING CHEMICALS IN EUROPEAN HOUSE DUST BY GCXGC-MS AND GC-HRMS

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J.08 GAS CHROMATOGRAPHIC MONITORING OF TRIHALOMETHANES IN TAP WATER AND WATER TREATMENT PLANTS OF CYPRUS: METHOD ASSESSMENT USING METRIC TOOLS

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J.09 COMPARATIVE STUDY OF THE IMPACT OF VOLATILE ORGANIC COMPOUNDS ON THE VICINITY OF TWO INDUSTRIAL AREAS IN SPAIN

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J.10 CHARACTERIZATION OF FUNGAL LOW-MOLECULAR-WEIGHT ORGANIC ACIDS FOR THE RECOVERY OF RARE ELEMENTS FROM ELECTRONIC WASTE

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K. COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY

K.01 CHARACTERIZATION OF VOLATILE OXIDATION AND RANCIDITY COMPOUNDS IN WALNUT OIL BY HEADSPACE SOLID-PHASE MICROEXTRACTION COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY TIME OF FLIGHT MASS SPECTROMETRY WITH TILE-BASED FISHER RATIO ANALYSIS

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K.02 SAMPLING AND GC×GC CHARACTERIZATION OF TRACE VOLATILE ORGANIC COMPOUNDS IN H2 AND CO2 MATRICES FOR RENEWABLE GAS INTEGRATION

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K.03 IDENTIFICATION OF TRACE CONTAMINANTS IN RECYCLED FOOD-CONTACT PLASTICS USING GC×GC-TOFMS

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K.04 SUITABILITY OF POST-CONSUMER RECYCLED PLASTIC AS A FOOD CONTACT MATERIAL

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K.05 COMPUTER VISION-BASED AUGMENTED VISUALISATION FOR COFFEE ORIGINS IDENTITATION USING COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY

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K.06 QUICK SNIFF INTO BOAR TAINT USING INTEGRATED VOLATILOMIC AND METABOLOMIC USING GC×GC-MS

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K.07 HS-SPME-GC×GC ANALYSIS FOR VOCS PROFILING IN RECYCLED PLASTICS

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K.08 TILE-BASED FISHER RATIO APPROACH AS A RAPID SCREENING OF LIGHT HYDROCARBONS IN CRUDE OILS: ADVANCES IN GC×GC-TOFMS DATA ANALYSIS

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K.09 EXPLORING THE SKIN VOLATOLOME BY TD-GCXGC-TOFMS TO IDENTIFY SIGNATURES OF SKIN CANCER

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K.10 ADVANCED PY-GC×GC-MS CHARACTERISATION OF ARTIFICIALLY AGED TIRE WEAR PARTICLES

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K.11 OPTIMIZATION OF SPME EXTRACTION FOR SPECIES-LEVEL IDENTIFICATION OF SPF WOOD AND ANALYSIS BY GC×GC-TOFMS

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K.12 GO WITH THE FLOW: USING HIGH-FLOW RATES IN FLOW-MODULATED GCXGC-QUADRUPOLE MASS SPECTROMETRY

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K.13 COMPOUNDS BY COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY/TIME-OF-FLIGHT MASS SPECTROMETRY

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K.14 METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS DETERMINATION AND QUANTIFICATION OF ORGANOTIN COMPOUNDS IN WASTEWATER USING HS-SPME ARROW AND GC×GC-(HR)TOFMS

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K.15 FINGERPRINTING OF BIO-OILS FROM DIFFERENT DWARF COCONUT VARIETIES

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K.16 FROM VOLATILOME TO AGE PREDICTION: GC×GC-DRIVEN BIOMARKERS AND MACHINE LEARNING FOR HAZELNUT SHELF-LIFE MANAGEMENT

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K.17 GC×GC-MS FOR QUANTITATIVE NON-TARGET SCREENING OF WASTEWATER: PIXEL-BASED PRIORITIZATION AND DATA-DRIVEN CONTAMINANT FINGERPRINTING

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K.18 TWO DECADES OF MULTIRESIDUE PESTICIDES ANALYSIS: A COMPARISON OF PTV-GC×GC-TOF MS AND PTV-GC×GC-TOF BTX INSTRUMENTS

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K.19 STATIC HEADSPACE ENANTIOSELECTIVE COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY-TIME-OF-FLIGHT MASS SPECTROMETRY FOR FOOD ANALYSIS: A PROOF-OF-PRINCIPLE STUDY

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K.20 GCXGC WITH THE INSIGHT FLOW MODULATOR: PARAMETERS OPTIMIZATION

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K.21 HS-SPME-GC×GC-TOFMS METHOD DEVELOPMENT USING AN INSIGHT FLOW MODULATOR FOR GRAPE VOLATILE PROFILING

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K.22 DETAILED CHARACTERIZATION OF HVO, SAF, AND RENEWABLE DIESEL BY GC×GC-TOFMS

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K.23 A NOVEL GC×GC MODULATOR USING SI MICROVALVES

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K.24 CHARACTERIZATION OF LABORATORY-AGED CRUDE OIL AND TAR FROM A POLLUTED COASTAL BEACH USING COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY COUPLED TO TIME-OF-FLIGHT MASS SPECTROMETRY

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K.25 CREATING TWO-DIMENSIONAL GAS CHROMATOGRAPHY STRATEGIES FOR THE SPECIATION OF HETEROATOM-CONTAINING COMPOUNDS IN NON-CONVENTIONAL FEEDSTOCKS.

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K.26 GOING GREENER AND SMARTER IN GC×GC: FID-MS CHROMATOGRAM FUSION FOR FRAGRANCE ALLERGEN ANALYSIS

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K.27 PERFORMANCE COMPARISON OF DIFFERENT GC-HRMS ANALYTICAL METHODS FOR QUANTITATION OF FRAGRANCE ALLERGENS IN PERFUME CONCENTRATES

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K.28 ENHANCING SELECTIVITY AND CHARACTERIZATION OF COMPLEX HYDROCARBON MIXTURES BY FLOW-MODULATED GC×GC-VUV

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K.29 UNRAVELING PETROCHEMICAL FOULING BY PY-GC×GC FOR ADVANCED MOLECULAR ELUCIDATION

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K.30 OPTIMIZATION OF SOLID-PHASE MICROEXTRACTION CONDITIONS FOR THE IDENTIFICATION OF VOLATILE ORGANIC COMPOUNDS IN COFFEE SAMPLES AND COMPARISON OF SAMPLES BASED ON GEOGRAPHICAL ORIGIN USING GCXGC-HRTOF-MS

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K.31 SPE-FREE GC×GC FOR TPH-CWG COMPLIANT EPH ANALYSIS: A HIGH-THROUGHPUT, COST-EFFICIENT AND SUSTAINABLE WORKFLOW

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K.32 ADVANCING MULTI-DETECTOR GC×GC: GAS FLOW OPTIMIZATION ASPECT FOR SIMULTANEOUS TOFMS, FID, AND VUV DETECTION

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K.33 EXTRACTION AND CHARACTERIZATION OF NITROGEN AND SULFUR COMPOUNDS FROM LIGHT PETROLEUM DERIVATIVES BY GCXGC-QTOF

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K.34 COMPARATIVE ANALYSIS OF WHISKY BY GC×GC-TOF MS: VARIATION ACROSS STYLES AND GEOGRAPHICAL ORIGINS

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K.35 DRIVING SUSTAINABILITY THROUGH COMPREHENSIVE CHEMICAL CHARACTERISATION OF PYROLYSIS OILS AND RECYCLED PLASTICS

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K.36 FACILITATING INTRODUCTION OF GCXGC-FID FOR ROUTINE PETROCHEMICAL ANALYSIS BY UOP 990-11

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K.37 CHARACTERIZATION OF HIGH-PERFORMANCE POLYMERS USING THERMAL DESORPTION/PYROLYSIS, ENHANCED CHROMATOGRAPHY, AND HIGH-RESOLUTION MASS SPECTROMETRY

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K.38 GREATER INSIGHTS INTO DISTILLED SPIRITS USING HEADSPACE SPME-GCXGC-MS

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K.39 APPLYING COMPUTER VISION TO AUTOMATE ROUTINE GCXGC ANALYSIS

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K.40 STATISTICAL DIFFERENTIATION OF TEQUILA SPIRITS USING SPME-GCXGC-TOFMS AND CHROMATOF TILE SOFTWARE

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K.41 EXPLORATORY ASSESSMENT OF THE ENDOCRINE DISRUPTORS PRESENT IN BRAZILIAN HONEY BY GC/MS AND GC×GC/TOFMS

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K.42 DEVELOPMENT AND OPTIMIZATION OF A DERIVATIZATION METHODOLOGY TO UNTARGETED HUMAN EXHALED BREATH CONDENSATION (EBC) USING GC×GC-TOFMS

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K.43 THE EFFECTIVENESS OF A REVERSE FILL/FLUSH DIFFERENTIAL FLOW MODULATOR IN GC×GC WITH PARALLEL MS/FID DETECTION

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K.44 FROM WASTE TO RESOURCES: SAMPLE PREPARATION APPROACHES IN COMBINATION WITH GC×GC-TOFMS FOR THE CHARACTERIZATION OF WIND TURBINE BLADE RECYCLING PRODUCTS

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K.45 STUDY OF THE COMPLEMENTARITY OF SUPERCRITICAL FLUID EXTRACTION (SFE) AND DYNAMIC HEAD SPACE (DHS) FOR ANALYSIS OF VOLATILE COMPOUNDS BY GC×GC-HRMS FROM THREE ALGERIAN PLANTS.

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K.46 ADVANCING QUALITY CONTROL OF CONVENTIONAL, SAF, AND DROP-IN AVIATION FUELS THROUGH GC×GC: METHOD VALIDATION AND PERFORMANCE ASSESSMENT

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K.47 MONITORING OF VOLATILE ORGANIC COMPOUNDS RELEASED BY WOOD PYROLYSIS BY SOLID-PHASE MICROEXTRACTION COMBINED WITH ONE AND TWO-DIMENSIONAL GAS CHROMATOGRAPHY

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K.48 IDENTIFYING NON-BIOLOGICAL VARIANCE IN NON-TARGETED BREATHVOC METABOLOMICS

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K.49 ANALYTICAL CHALLENGES AND OPPORTUNITIES IN THE CHARACTERIZATION OF PYROLYSIS OILS AND OTHER ALTERNATIVE RESOURCES

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L. BIOMEDICAL AND PHARMACEUTICAL

L.01 FFF-MULTIDETECTION CHARACTERIZATION OF FUNCTIONAL NANOPARTICLE AND NANOZYME-BASED SYSTEMS FOR ADVANCED BIOANALYTICAL APPLICATIONS

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L.02 FROM SEPARATION TO DECISIONS IN SCREENING: A HIDDEN MECHANISM FOR LOSING THE BEST COMPOUNDS

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L.03 LC-MS/MS-BASED SEPARATION AND DETERMINATION OF POLYSUBSTANCE USE MARKERS IN WHOLE BLOOD

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L.04 UPLC-MS/MS AS A SMART BIOANALYTICAL TOOL: INTEGRATION OF GREEN, SUSTAINABLE, WHITE ANALYTICAL CHEMISTRY AND ARTIFICIAL INTELLIGENCE-DRIVEN APPROACHES

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L.05 ANALYTICAL PLATFORM FOR HIGH-THROUGHPUT QUANTITATIVE LIPIDOMICS ANALYSIS IN HUMAN BIOLOGICAL SAMPLES BY MIXED MODE HPLC (HILIC+RP) COUPLED TO TRIPLE QUADRUPOLE MASS SPECTROMETRY

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L.06 AIR POLLUTION-INDUCED PULMONARY DISEASES: AN INTEGRATED ANALYTICAL APPROACH FOR THE IDENTIFICATION OF BIOMARKERS

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L.07 A UHPLC-DAD METHOD FOR QUANTIFICATION OF CURCUMINOIDS AND PIPERINE IN FOOD SUPPLEMENTS BASED ON CURCUMA LONGA EXTRACT AND EVALUATION OF THEIR BIOLOGICAL ACTIVITY ON THE HEP-2 CELL LINES

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L.08 DETERMINATION OF SHORT-CHAIN FATTY ACIDS IN HUMAN PLASMA BY MEANS OF FAST-GAS CHROMATOGRAPHY-MASS SPECTROMETRY TECHNIQUE

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L.09 ADVANCED ANALYTICAL APPROACHES FOR THE ANALYSIS OF BIOMARKER AS INDICATORS OF CANCER AND RESPIRATORY DISEASES

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L.10 CLOG-FREE, HIGH-RECOVERY EV ISOLATION VIA A SPONGY MONOLITHIC POLYMER PLATFORM

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L.11 A RAPID AND GREEN HPLC METHOD DEVELOPMENT FOR ABROCITINIB USING DESING OF EXPERIMENTS

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L.12 ANALYSIS OF LIPID NANOPARTICLE COMPONENTS USING HYDRA™, A NEW VACUUM ULTRAVIOLET DETECTOR FOR LIQUID CHROMATOGRAPHY

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L.13 UNDERIVATIZED AMINO ACIDS ANALYSIS WITH A NOVEL VACUUM ULTRAVIOLET DETECTOR FOR LIQUID CHROMATOGRAPHY

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L.14 MULTI-OMICS PROFILING FOR NON-INVASIVE BIOMARKER DISCOVERY OF CARDIAC DAMAGE

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L.15 DEVELOPMENT OF A CZE-MS/MS METHOD FOR THE SIMULTANEOUS DETERMINATION OF FEDRATINIB, GILTERITINIB, PIRTOBRUTINIB AND ASCIMINIB

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L.16 DEVELOPMENT OF A NEW METHODOLOGY FOR THE EXTRACTION AND ANALYSIS OF METABOLITES IN EARWAX FOR APPLICATION IN METABOLOMICS STUDIES VIA GC-MS

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L.17 ANALYTICAL QUALITY BY DESIGN-DRIVEN DEVELOPMENT OF A ROBUST CIEF PLATFORM FOR THE CHARGE HETEROGENEITY PROFILING OF MODERATELY BASIC MONOCLONAL ANTIBODIES

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L.18 CLINICAL MONITORING OF TOFACITINIB, UPADACITINIB AND FILGOTINIB LEVELS IN THE SERUM OF PATIENTS TREATED FOR INFLAMMATORY BOWEL DISEASE BY VALIDATED PROTOCOL BASED ON MICROELUTION SPE SAMPLE PREPARATION AND HPLC-MS/MS ANALYSIS

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L.19 PLATFORM-DRIVEN IMPROVEMENT OF DETECTION LIMITS IN TRACE NEUROTRANSMITTER ANALYSIS: A COMPARATIVE STUDY OF CE-DAD AND HPLC-QTOF IN ANIMAL BRAIN TISSUE

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M. ENERGY, PETROCHEMICAL AND INDUSTRIAL

M.01 INFLUENCE OF CO-PROCESSING FAST AND SLOW PYROLYSIS BIO-OILS WITH PETROGENIC RESIDUE IN THE COKING PROCESS ON THE MOLECULAR COMPOSITION OF LIQUID PRODUCT VIA GC×GC-TOFMS

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M.02 HYDROCARBON SPACE MAPPING OF HYDROCARBON UVCB SUBSTANCES TO SUPPORT READ-ACROSS UNDER REACH

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M.03 ADVANCEMENT IN CHEMICAL RECYCLING WITH GC-VUV

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M.04 COMPREHENSIVE GC×GC-FID/TOF-MS CHARACTERIZATION OF PYROLYSIS OIL

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M.05 TRACKING ALKYLATED DECALINS DURING BIODEGRADATION OF A COMPLEX HYDROCARBON SUBSTANCE TO DERIVE PRIMARY HALF-LIFE DATA

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N. NATURAL PRODUCTS, FOOD, FLAVOURS AND FRAGRANCES

N.01 REPLACING HELIUM WITH HYDROGEN IN GC-MS: A SUSTAINABLE ALTERNATIVE EVALUATED THROUGH FRAGRANCE ANALYSIS

Marta Pavarino[1], *Gaia Bechis*[1], *Alessia Arena*[2], *Carlo Bicchi*[1], *Patrizia Rubiolo*[1], *Mariosimone Zoccali*[3], *Luigi Mondello*[2,4], *Cecilia Cagliero*[1]
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N.02 VOLATILOMICS STUDY OF ORANGE WHEAT BLOSSOM MIDGE AND WHEAT INTERACTIONS

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N.03 COMPREHENSIVE CHEMICAL PROFILING OF ESSENTIAL OILS FROM OIL-BEARING ROSE SPECIES BY TWO-DIMENSIONAL GAS CHROMATOGRAPHY-MASS SPECTROMETRY

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N.04 A SUSTAINABLE REIMS-QTOF APPROACH FOR THE COMPREHENSIVE CHARACTERIZATION OF NATURAL PRODUCTS

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N.05 AMBIENT MASS SPECTROMETRY STRATEGIES FOR FINGERPRINTING AND TARGETED ANALYSIS OF MADE IN ITALY FOOD PRODUCTS

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N.06 MSME/GC-MS FOR THE IDENTIFICATION AND PREDICTION OF THE CHARACTER OF HERBAL AROMA COMPONENTS

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N.07 CHEMOMETRICS LINKS CHROMATOGRAPHY-DERIVED METABOLOMIC PROFILES TO PERCEPTUAL AROMA IN CANNABIS CHEMOTYPES

Elisa Irrera[1,2], *Nicolas Baldovini*[2], *Marina Russo*[1], *Cristina Giuliano*[3], *Francesco Donato Chirico*[3], *Paola Dugo*[1,4], *Luigi Mondello*[1,4]
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N.08 INTEGRATING EXPERIMENTAL AND DATA-DRIVEN RETENTION TIME ANALYSIS FOR QUERCETIN AND ALOE-EMODIN

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N.09 FROM LABORATORY GC-MS TO SCALABLE GC PLATFORMS: A ROBUST ALDEHYDE-BASED SCORE FOR HAZELNUT OXIDATION MONITORING

Sara Tanilli[1], *Andrea Caratti*[1], *Giuseppe Genova*[2], *Alex Fissore*[2], *Cristina Casetta*[2], *Angelica Fina*[1], *Fulvia Trapani*[1], *Erica Liberto*[1], *Chiara Cordero*[1]
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N.10 THE ROLE OF UNKNOWN KEY ODORANTS IN ENHANCING ORANGE PRODUCT QUALITY: ISOLATION AND CHARACTERIZATION OF AROMA COMPOUNDS FROM ORANGE PROCESSING BYPRODUCTS

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N.11 GC-MS CHEMICAL PROFILING OF THE VOLATILE FRACTION OF HERBAL PLANT EXTRACTS FROM JORDAN AND EGYPT: ENVIRONMENTAL INFLUENCES ON COMPOSITION

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N.12 COMPREHENSIVE STUDY OF GRAPE VOLATILES

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N.13 VOLATILE PROFILING OF PORTUGUESE MINORITY RED GRAPE CULTIVARS BY GC×GC-TOFMS

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N.14 QUANTITATION OF QUINOLIZIDINE ALKALOIDS IN LUPINUS SPP. BY GC METHODS

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N.15 GC EVALUATION OF NATURALLY OCCURRING TRITERPENIC SAPOGENINS AND THEIR ARTEFACTS IN TRIFOLIUM SSP.

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N.16 PLASTICIZERS IN OLIVE OIL: MONITORING ALONG THE PRODUCTION CHAIN AND DURING STORAGE

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N.17 A MULTI-ANALYTICAL GC APPROACH FOR THE IDENTIFICATION OF KEY ODORANTS AND THE CHARACTERIZATION OF AROMA CHANGES DURING POSTHARVEST RIPENING IN GREENHOUSE-GROWN MUSKMELON (CUCUMIS MELO L., CV. 'EARL'S FAVORITE')

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N.18 UNDER PRESSURE: CAP OR CORK? A HS/SPME-GC/MS APPROACH TO EVALUATE 10 YEARS OF AROMA EVOLUTION IN SPARKLING WINES

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N.19 MONITORING OF SELECTED POTENTIALLY HARMFUL COMPOUNDS IN PROCESSED FOODS WITH ADDED FLAVOURINGS

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N.20 CHARACTERIZATION OF VOLATILE COMPOUNDS IN FERMENTED SAUSAGES USING GC×GC- HRMS AND MULTIVARIATE ANALYSIS

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N.21 A NOVEL INSIGHT INTO VOLATILE AND POLYPHENOLIC COMPOSITION OF ITALIAN-GROWN ROSA DAMASCENA MILL.

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N.22 ROBUST, FAST AND RELIABLE QUALITATIVE AND QUANTITATIVE ANALYSIS OF MINERAL OILS BY GCXGC-TOFMS/FID

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N.23 USE OF HYDROGEN AS CARRIER GAS IN COMPREHENSIVE TWO-DIMENSIONAL GAS CHROMATOGRAPHY WITH FLOW-MODULATION AND DUAL-DETECTION FOR PERFUME FORMULATION

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N.24 HYDROPHOBIC DEEP EUTECTIC SOLVENT-BASED MICROEXTRACTION FOR THE SIMULTANEOUS RECOVERY OF VOLATILE AND NON-VOLATILE METABOLITES FROM CITRUS PRUNING RESIDUES

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N.25 BEYOND FIRST IMPRESSIONS: TRACKING AROMA PROFILES OVER TIME IN FOOD AND FRAGRANCE APPLICATIONS

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N.26 DECODING THE MEAD BOUQUET: MICROBIAL DYNAMICS AND VOLATILOMIC EVOLUTION IN SPONTANEOUS VS. INOCULATED FERMENTATION

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N.27 ACCURATE QUANTIFICATION OF CITRUS ESSENTIAL OIL CONSTITUENTS: A COMPARISON OF GAS CHROMATOGRAPHIC APPROACHES

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N.28 QSRR-ASSISTED CROSS-SYSTEM RETENTION TRANSFER OF OXYGEN HETEROCYCLIC COMPOUNDS FROM A LITERATURE HPLC METHOD TO A UHPLC PLATFORM

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N.29 COMPOSITION AND ANTIMICROBIAL PROPERTIES OF COASTAL TEA TREE ESSENTIAL OIL

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N.30 OPTIMIZATION OF SPME FOR VOLATILE PROFILING OF ACACIA CONFUSA AND PICEA ABIES FOR STUDYING ENDOPHYTE-ASSOCIATED RESISTANCE

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N.31 HIGH-RESOLUTION MASS SPECTROMETRIC PROFILING OF BIOACTIVE MOLECULES IN AROMATIC PLANTS AND HERBS

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N.32 SUSTAINABLE LIPIDOMIC PROFILING OF TRIACYLGLYCEROLS BY SFC-PDA: FROM SEED OIL CHARACTERIZATION TO OLIVE OIL AUTHENTICITY

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N.33 ALTERNATIVE GREEN SOLVENTS FOR RP-HPLC-PDA-MS ANALYSIS OF POLYPHENOLS IN NATURAL PRODUCTS

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N.34 DOE OPTIMIZATION OF PHENOLIC COMPOUND IONIZATION IN GREENER RP-HPLC-ESI-MS WITH DMC/ETOH ORGANIC PHASE

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N.35 BRAZILIAN EXTRA VIRGIN OLIVE OILS: APPLYING THE FATTY ACID PROFILE TO DISCRIMINATE BY GEOGRAPHIC ORIGIN

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N.36 PHENOLIC PROFILE IN BRAZILIAN EXTRA VIRGIN OLIVE OILS FROM ARBEQUINA AND KORONEIKI CULTIVARS

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N.37 UNDERSTANDING AROMA COMPLEXITY IN PETFOOD USING ORIGINAL GC-INNOSCENT FOR CHROMATOGRAPHIC RECOMPOSITION AND ODORANT OMISSION STRATEGIES

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N.38 IMPROVED MICROWAVE-ASSISTED SAPONIFICATION FOR RELIABLE MOSH AND MOAH DETERMINATION IN EDIBLE FATS AND OILS

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N.39 VOLATILE ORGANIC COMPOUNDS PROFILE AS A POSSIBLE MARKER TO IDENTIFY HONEY FROM STINGLESS BEES OF DIVERSE SPECIES

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N.40 DEVELOPMENT AND VALIDATION OF AN ULTRASOUND-ASSISTED EXTRACTION METHOD (UAE) USING NATURAL DEEP EUTECTIC SOLVENTS FOR THE DETERMINATION OF PHENOLIC COMPOUNDS IN MOUNTAIN TEA PRIOR TO LC-MS/MS ANALYSIS

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N.41 VOLATILE COMPOUND PROFILING OF CHILI PEPPER (CAPSICUM SPP.) PULP, SEEDS, AND PLACENTA BY HS-SPME-GC ANALYSIS

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N.42 UNTARGETED AND TARGETED METABOLOMIC APPROACHES TO INVESTIGATE THE INFLUENCE OF SELENIUM-ENRICHMENT ON THE BIOSYNTHESIS OF HEALTH PROMOTING SECONDARY METABOLITES OF EDIBLE PLANTS.

Zeineb Aturki[1], *Enrica Donati*[1], *Giovanni D' Orazio*[1], *Lázaro- Armando Pérez- Acosta*[2], *Mercè Llugany*[3], *María- Jesús Sánchez-*
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N.43 VALORIZATION OF INDUSTRIAL HEMP (CANNABIS SATIVA L.) INFLORESCENCES AS A CIRCULAR ECONOMY RESOURCE: CHEMICAL PROFILING AND ANTIMICROBIAL ACTIVITY OF ESSENTIAL OILS

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N.44 SUPRAMOLECULAR DEEP EUTECTIC SOLVENTS FOR THE SUSTAINABLE EXTRACTION OF PHENOLIC COMPOUNDS FROM OLIVE POMACE FOLLOWED BY HPLC-MS ANALYSIS

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N.45 UHPLC-MS/MS ANALYSIS OF ANTHOCYANINS AND PHENOLIC COMPOUNDS IN FRACTIONATED PIGMENTED WHEAT

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N.46 ANALYTE-DEPENDENT OPTIMIZATION OF VAC-SPME-GC-MS

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N.47 EVALUATING SEPARATION AND IDENTIFICATION STRATEGIES FOR PHENOLIC COMPOUNDS IN COMPREHENSIVE LC × LC

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O. SUPERCRITICAL FLUID CHROMATOGRAPHY AND EXTRACTION

O.01 FAST LOW-PRESSURE GC-QQQMS FOR MULTI-RESIDUE ANALYSIS OF PESTICIDES IN FOOD

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O.02 CUTTING-EDGE EXTRACTION METHODOLOGY USING SUPERCRITICAL FLUIDS FOR THE RECOVERY OF BIOACTIVE MOLECULES FROM CITRUS PRUNING RESIDUES

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O.03 DEVELOPMENT OF A MULTI-CLASS SUPERCRITICAL FLUID EXTRACTION METHOD FOR BIOACTIVE COMPOUNDS FROM OLIVE PRUNING WASTES

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O.04 NEW STRATEGY FOR QUANTIFYING OLEFINS IN MIDDLE DISTILLATES USING THE SFC-FID METHOD

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O.05 HIGH-THROUGHPUT SCREENING OF PHOTOTOXIC OHCS IN CITRUS ESSENTIAL OILS USING ECO-FRIENDLY SUPERCRITICAL FLUID CHROMATOGRAPHY

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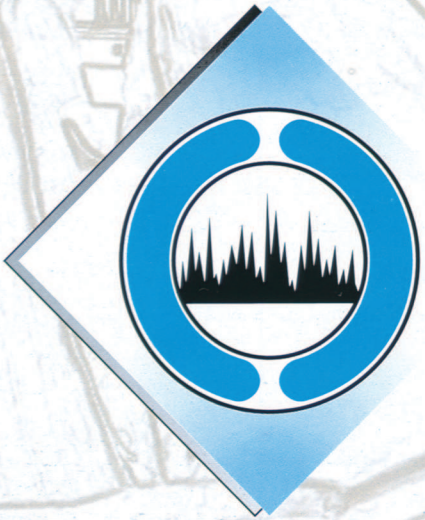

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