ISEO 2023

53rd INTERNATIONAL SYMPOSIUM ON ESSENTIAL OILS

September 13-16, 2023 – Milazzo, Messina, Italy

FINAL PROGRAM

Chairs:
Paola Dugo and Luigi Mondello

Scientific program

Wednesday, 13th September, 2023

15:00 – 17:00		**Registration**
17:00 – 18:45		**Opening Cerimony and Greetings from the Authorities** Chairs: Paola Dugo, Luigi Mondello Pippo Midili – Major of the city of Milazzo Salvatore Cuzzocrea – Rector of the University of Messina **Milazzo and the Essential Oils** Ivana Lidia Bonaccorsi **ISEO Medal of Honour presentation** Kemal Hüsnü Can Başer and Giovanni Dugo
	18:00	**Opening lecture** Some thoughts on the future of essential oils Kemal Hüsnü Can Başer *Near East University in Nicosia, N. Cyprus*
	18:30	**European Federation of Essential Oils (EFEO)** Successful defense in Brussels for the use of natural oils in perfumery and cosmetics against the risk of a restrictive legal proposal that would limit their use *Cav. Lav.* Gianfranco Capua, Vilfredo Raymo *Italian board representatives for EFEO*
18:45 – 21:00		**Get-together party** - *Villa Vaccarino*

Thursday, 14th September, 2023

08:00 – 13:00		**Registration**
09:00 – 12:30		**Session 1**
09:00 – 10:30		Chairs: Carlo Bicchi, Humberto Bizzo
		Plenary Lecture
	09:00	(PL-1) The Sensomics approach, important tool for the characterisation of the key odorants in five species of the mint family (*Lamiaceae*): Aroma quality assessment of commercial spices and odorant receptor research Peter Schieberle *Technical University of Munich, Munich, Germany*
		Oral Lectures
	09:45	(OL-1) Essential oils bearing specialized metabolites with potential hypoglycemic activity: a bio-guided fractionation approach driven by *in vitro* (porcine, human and fungal) alpha-amylase inhibition assays Barbara Sgorbini, Marta Pavarino, Salvatore Adinolfi, Francesca Spyrakis, Cecilia Cagliero, Arianna Marengo, Carlo Bicchi, Patrizia Rubiolo *University of Turin, Turin, Italy*
	10:00	(OL-2) Chemical words: microbial volatiles (mVOCs) interact with plants and promote growth by gene modulation and oxidative stress Massimo Maffei *Plant Physiology Unit, Department of Life Sciences and Systems Biology, University of Turin, Turin, ITALY*
	10:15	(OL-3) Agarwood (*Aquilaria malaccensis* L.) a quality fragrant and medicinally significant plant based essential oil with pharmacological potentials and genotoxicity Mohan Lal[1], Roktim Gogoi[1,2], Neelav Sarma[1,2], Twahira Begum[2] *[1]Academy of Scientific and Innovative Research, Ghaziabad, India; [2]CSIR-North east Institute of Science and Technology, Jorhat, India*
10:30 – 11:00		**Coffee Break**

11:00 – 12:30		Chairs: Marina Russo, Iris Stappen
		Oral Lectures
	11:00	(OL-4) Tridimensional gas chromatographic system coupled to an olfactometric port and FID/MS detection for the quali-quantitative and odour evaluation of trace components. Danilo Sciarrone[1], Gemma De Grazia[2], Lorenzo Cucinotta[1], Luigi Mondello[1,3] *[1]University of Messina, Messina, Italy; [2]Capua 1880 Srl, Reggio Calabria, Italy; [3] Chromaleont s.r.l., Messina, Italy*
	11:15	(OL-5) Biocidal properties of essential oils and aromatic extracts Lucyna Balcerzak, Alicja Surowiak, Kinga Baberowska, Zuzanna Bacińska, Daniel Jan Strub *Wrocław University of Science and Technology, Wrocław, POLAND*
	11:30	(OL-6) Exploring the stereochemical influence of essential Oil compounds on antimicrobial activity: uncovering the power of enantiomers in combination studies Sandy van Vuuren[1], Nazihah Hoosen[1], Alvaro Viljoen[2] *[1]University of the Witwatersrand, Johannesburg, South Africa; [2]Tshwane University of Technology, Pretoria, South Africa*
	12:45	(OL-7) Influence of the selected essential oil on invasive *Solidago canadensis* L. Mária Pluchtová, Beata Baranová, Daniela Grulová *University of Prešov, Slovakia*
	12:00	(OL-8) Biological Properties of fractions obtained from winter lemon and grapefruit essential oils Marzia Pucci[1], Stefania Raimondo[1], Roberta Gasparro[1], Vincenza Tinnirello[1], Valeria Corleone[2], Gioacchino Aiello[2], Simona Fontana[1], Riccardo Alessandro[1] *[1]University of Palermo, Palermo, Italy; [2]Agrumaria Corleone s.p.a., Palermo, Italy*
	12:15	(OL-9) Use of liquid and supercritical fluid chromatography for determination of coumarins, furocoumarins, and polymethoxyflavones Marina Russo[1], Maria Rita Testa Camillo[1], Giovanna Cafeo[1], Antonella Satira[2], Patrik Appelblad[3], Romana Rigger[4], Paola Dugo[1], Luigi Mondello[1] *[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., Messina, Italy; [3]Merck LifeScience AS, Norge; [4]Merck Chemicals and Life Science GesmbH, Austria*
12:30 – 14:00		**Lunch -** "*Osteria Adagio Adagio*" restaurant

14:00 – 17.00 **Session 2**

14:00 – 15:30 Chairs: Stanislaw Lochynski, Barbara Sgorbini

Plenary Lecture

14:00 (PL-2) Chemometric strategies for the verification of authenticity claims and fraud detection in essential oils

Paolo Oliveri
University of Genoa, Genoa, Italy

Young Scientists Oral Lectures

14:40 (YOL-1) Assessment and challenges of mineral oil contamination in *Citrus* essential oils

Alessia Arena[1], Mariosimone Zoccali[1], Peter Q. Tranchida[2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., Messina, Italy

14:50 (YOL-2) *Salvia apiana In Vitro* Shoot System as a source of biologically active volatile fraction

Agata Król[1], Adam Kokotkiewicz[1], Bożena Zabiegała[2], Klaudia Ciesielska-Figlon[1], Jacek M. Witkowski[1], Maria Łuczkiewicz[1]
[1]Medical University of Gdańsk, Gdańsk, Poland; [2]Gdańsk University of Technology, Gdańsk, Poland

15:00 (YOL-3) Comprehensive chemical Characterization of Unconventional Cold Pressed Seed Oils

Cinzia Cafarella[1], Francesca Rigano[1], Emanuela Trovato[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., Messina, Italy

15:10 (YOL-4) Comparative in vitro and in silico enzyme inhibitory screening of *Rosa x damascena* and *Pelargonium graveolens* essential oils and geraniol

Ayşe Esra Karadağ[1], Sevde Nur Biltekin[1,2], Betül Demirci[3], Fatih Demirci[3,4], Usman Ghani[5]
[1]Istanbul Medipol University, Istanbul, Turkiye; [2]Institute of Sciences, Istanbul University, Istanbul, Turkiye; [3]Anadolu University, Eskişehir, Turkiye; [4]Eastern Mediterranean University, Famagusta, N. Cyprus, Turkiye; [5]College of Medicine, King Saud University, Riyadh, Saudi Arabia

15:20 (YOL-5) Investigation of Coumarins, Furocoumarins and Polimethoxyflavones in Citrus Hand Gels by Hyphenated Chromatography Techniques

Giovanna Cafeo[1], Tania M. G. Salerno[1], Emanuela Trovato[1], Federica Vento[1], Mariosimone Zoccali[1], Paola Donato[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., Messina, Italy

15:30 – 16:00		**Coffee Break**
16:00 – 17:00		Chairs: Daniel Jan Strub, Agnieszka Ludwiczuk
		Young Scientists Oral Lectures
	16:00	(YOL-6) Raw fragrance materials as potential antimicrobial agents Alicja K. Surowiak[1], Lucyna Balcerzak[1], Daniel J. Strub[1,2] *[1]Wroclaw University of Science and Technology, Wrocław, POLAND; [2]Liquid Technologies sp. zo.o., Wrocław, POLAND*
	16:10	(YOL-7) Nanoformulation of a biopesticide based on combinations of essential oils of Syzygium aromaticum (cloves) and Zingiber officinale (roots) harvested in Cameroon Davy Moussango[1], Sameza Modeste[1], Tchameni Severin[1], Ebong priscile[1], Ampére Bédine[2], Jazet Dongmo[1], Chantal Menut[3] *[1]University of Douala, Douala, Cameroon; [2]University of Yaoundé I, Yaoundé, Cameroon; [3]Glyco and nanovectors for therapeutic targeting" team, IBMM, Montpellier, France*
	16:20	(YOL-8) Photo–protective effects of furocoumarins on citrus essential oils and the impact on natural perfumery Clio Vidal, Hannes Bitterling *Department of Analytical Development & Research, WALA Heilmittel GmbH, Dorfstrasse 1, 73087 Bad Boll/Eckwälden, Germany*
	16:30	(YOL-9) Xanthoxylin from *Pulicaria incisa* essential oil: chemical composition of volatile fraction and their biological activities Antonella Porrello[1], Natale Badalamenti[1,2], Maurizio Bruno[1,2], Viviana Maresca[3], Adriana Basile[3] *[1]University of Palermo, Palermo, Italy; [2]National Biodiversity Future Center, Palermo, Italy; [3] University of Campania "Luigi Vanvitelli", Naples, Italy.*
	16:40	(YOL-10) Circular Economy in the cosmetic industry: a systematic literature review Alice Mondello, Roberta Salomone, Giovanni Mondello *University of Messina, Italy*
	16:50	DISCUSSION
17:00 – 18:30		**Poster Presentation – Session A**
19:30 – 23:30		**Symposium Dinner -** *La Baia Capo Milazzo*

Friday, 15th September, 2023

09:00 – 11:30 **Session 3**

09:00 – 10:30 Chairs: Eva Zamboriné-Németh, Clio Vidal

Plenary Lecture

09:00 (PL-3) Laboratories facing environmental challenges: shifting the paradigm

Christophe Peres
Le Labo Durable, Paris, France

Keynote Lecture

09:40 (KL-1) Volatiles from liverworts – chemical diversity and bioactive

Angieszka Ludwiczu[1], Yoshinori Asakawa[2]
[1]University of Lublin, Lublin, Poland; [2]Tokushima Bunri University, Tokushima, Japan

Oral Lectures

10:00 (OL-10) Seduced by our noses: odors in marketing

Nina Berg[1], Iris Stappen[2]
[1]Marienapotheke Baden, Baden, Austria; [2]University of Vienna, Vienna, Austria

10:15 (OL-11) About the use of alternative carrier gasses in gas chromatography for analysis of *Citrus* essential oils through the use of flame ionization detector and mass spectrometry

Antonio Ferracane[1], Micalizzi Giuseppe[1], Filippo Alibrando[1], Leonard M Sidisky[2], Luigi Mondello[1,3]
[1]University of Messina, Messina, Italy; [2] MilliporeSigma, USA: [3]Chromaleont s.r.l., Messina, Italy

10:30 – 11:00 **Coffee Break**

11:00 – 11:30 Chairs: Cecilia Cagliero

Oral Lectures

11:00 (OL-12) Comprehensive study of photo- and thermal degradation of chamazulene contained in *Matricaria* and *Achillea* essential oils and setup of protection strategies

Simone Gabbanini[1], Jerome Ngwa Neba[2], Riccardo Matera[1], Luca Valgimigli[2]
[1]R&D Department, BeC s.r.l., Forlì, Italy; [2]University of Bologna, Bologna, Italy

11:15 (OL-13) In vitro evaluation of essential oils as antioxidant and sunscreen agents for cosmetic formulations

Lucia Montenegro, Edy Angela Siciliano, Valeria Consoli, Luca Vanella, Valeria Sorrenti, Annamaria Panico
University of Catania, Catania, Italy

11:30 – 12:30		**Round Table with *Citrus* Industries** Chairs: Paola Dugo, Ivana Lidia Bonaccorsi Agrumaria Corleone, Agrumaria Reggina, Baller, Citrofood, Simone Gatto
12:30 – 14:00		**Lunch -** *Osteria Adagio Adagio* restaurant
14:00 – 17:00		**Session 4**
14:00 – 15:30		Chairs: Kemal Hüsnü Can Başer, Gianluca Gilardoni
		Plenary Lecture
	14:00	(PL-4) Organic synthesis: a valuable tool to explore the chemistry and the properties of essential oils Nicolas Baldovini *Université Côte d'Azur, Nice, France*
		Young Scientists Oral Lectures
	14:40	(YOL-11) Commercial use of *Cannabis Sativa L.* essential oil for the production of the first alcohol-free craft beer. Lorenzo Lamberti[1, 2], Giorgio Grillo[2], Giancarlo Cravotto[2] *[1]Craft Brewery Baladin S.s.a., Piozzo, Italy; [2]University of Turin, Turin, Italy*
	14:50	(YOL-12) Forgotten perfumery plants: fragrance revelation for innovation Kevin da Fonte[1], A.S. Bouville[1,2], P. Portes[2], J.C. Lhommet[2], X. Fernandez[1] *[1]Université Côte d'Azur/CNRS, Nice, France; [2]Laboratoires M&L, L'Occitane Group, Manosque, France*
	15:00	(YOL-13) Effect of essential oils on biofilm formation in different bacterial species Francesco Buccioni, Francesca Maggio, Annalisa Serio, Chiara Rossi, Chiara Purgatorio, Antonello Paparella *University of Teramo, Italy*
	15:10	(YOL-14) Evaluation of *Juniperus communis* L. (Juniper) essential oil samples sold on the market in Türkiye in terms of European Pharmacopoeia 10.0 criteria Timur Hakan Barak, Duru Düşmen, Tuğba Buse Şentürk, Engin Celep *Mehmet Ali Aydınlar University, Istanbul, Türkiye*
	15:20	(YOL-15) Enantio-selective multidimensional gas chromatography coupled to isotopic ratio mass spectrometry for the authenticity assessment of *Citrus* essential oils Lorenzo Cucinotta[1], Gemma De Grazia [2], Danilo Sciarrone[1], Luigi Mondello[1,3]

[1]*University of Messina, Messina, Italy;* [2]*Capua 1880 Srl, Reggio Calabria, Italy;* [3] *Chromaleont s.r.l., Messina, Italy*

15:30 – 16:00		**Coffee Break**
16:00 – 17:00		Chairs: Sandy van Vuuren, Massimo Maffei
		Young Scientists Oral Lectures
	16:00	(YOL-16) A comprehensive evaluation of hydrolates obtained from *Iris* rhizomes Maria Filatova[1], Jana Hajslova[1], Petr Kastanek[2], Michal Stupak[1] [1]*University of Chemistry and Technology Prague, Prague, Czech Republic;* [2]*Ecofuel Laboratories s.r.o., Prague, Czech Republic*
	16:10	(YOL-17) Altitude-Dependent Variation in Chemical Composition of Essential Oil of *Origanum acutidens* (HAND-MAZZ.) IETSWAART Furkan Coban[1], Hakan Ozer[1], Ramazan Cakmakci[2] [1]*Ataturk University, Erzurum, Turkiye;* [2]*Çanakkale Onsekiz Mart University, Çanakkale, Turkiye*
	16:20	(YOL-18) Fast chiral GC recognition of citrus essential oils evaluated with greenness metrics: is this analysis sustainable in industrial quality control? Gaia Bechis, Barbara Sgorbini, Carlo Bicchi, Patrizia Rubiolo, Cecilia Cagliero *University of Turin, Turin, Italy*
	16:30	(YOL-19) Characterization of volatile and aroma active compounds in *Cupressus torulosa* needles essential oil by GC-MS and GC-O analyses Piyush Bhalla[1], Renuka Thergaonkar[2], V.K Varshney[1] [1]*Forest Research Institute, Dehradun, Uttarakhand, INDIA;* [2]*R&D Global Consultants Private Limited, Hamilton, Patlipada, Maharashtra, INDIA*
	16:40	(YOL-20) Fractionation of *Cryptomeria japonica* essential oil by sequential elution during hydrodistillation – a preliminary study Filipe Arruda[1,2], Ana Lima[1,2], Alexandre Janeiro[2], Tânia Rodrigues[2], José S. Rosa[2], José Baptista[1,2], Tanner Wortham[3], Elisabete Lima[1,2] [1]*Azores University, Angra do Heroísmo, Portugal;* [2]*Azores University, Ponta Delgada, Portugal;* [3]*The Perfumery, New Albany, IN, USA*
	16:50	DISCUSSION
17:00 – 18:30		**Poster Presentation – Session B**
17:30 – 18:30		**Permanent Scientific Committee Meeting**

Saturday, 16th September, 2023

09:05 – 12:30		**Session 5**
09:05 – 11:00		Chairs: Györgyi Horváth, Patrizia Rubiolo
		Plenary Lecture
	09:05	(PL-5) Study of aromatic plants cultivated in Colombia and development of Colombian essential oil and natural ingredient industry Elena Stashenko *Industrial University of Santander, Bucaramanga, Colombia, South America.*
		Oral Lectures
	09:45	(OL-14) www.ai4essoil.com: a comprehensive essential oil database empowered by machine learning: unveiling valuable tools for enhanced exploration and application Rino Ragno[1], Filippo Sapienza[1], Roberta Astolfi[1], Alessio Ragno[1], Roberto Capobianco[1], Caterina Rossi[2], Stefano Manfredini[2] *[1]Sapienza University of Rome, Rome, Italy; [2]University of Ferrara, Ferrara, Italy*
	10:00	(OL-15) Chemical and enantioselective analyses of new essential oils in Ecuador: the genus *Gynoxys* Cass. (Asteraceae) Gianluca Gilardoni, Omar Malagón, Nixon Cumbicus *Universdad Tecnica Particular de Loja, Loja, Ecuador*
	10:15	(OL-16) Ohmic heating to valorize pineapple waste: GC-MS and headspace-SPME analysis of the extracted essential oils Mohsen Gavahian *National Pingtung University of Science and Technology, Pingtun, Taiwan*
10:30 – 11:00		**Coffee Break**
11:00 – 12:30		Chairs: Peter Quinto Tranchida, Nicolas Baldovini
		Oral Lectures
	11:00	(OL-17) Fast GC(×GC)-TOFMS using Hydrogen carrier gas applied to differential analysis of Essential oils Sebastiano Pantò, Lena M. Dubois, Dmitrii Rakov, Nick Jones *LECO European Application & Technology Center, Berlin, Germany*
	11:15	(OL-18) Unravelling the chemical complexity of essential oils: in-depth characterization and profiling by comprehensive two-dimensional chromatography and mass spectrometry (GC×GC-MS) Daniela Peroni, Raul Franceschini

		SRA Instruments SpA, Cernusco sul Naviglio (MI), ITALY
	11:30	(OL-19) Synergy between *Cinnamomum zeylanicum* essential oil and Fluconazole to bypass the resistance of *Candida auris* Maura Di Vito[1], S. Garzoli[2], R. Rosato[1], M. Mariotti[1], J. Gervasoni[3], L. Santucci[3], E. Ovidi[4], M. Cacaci[1], G. Lombarini[1], R. Torelli[3], A. Urbani[3], M. Sanguinetti[1,3], F. Bugli[1,3] *[1]Università Cattolica del Sacro Cuore, Rome, Italy; [2]Università di Roma Sapienza, Rome, Italy; [3]Fondazione Policlinico Universitario "A. Gemelli" IRCCS, Rome, Italy; [4]University of Tuscia, Viterbo, Italy*
	11:45	(OL-20) Caper leaf essential oil as antimicrobial and antioxidant agent for food applications Fabrizio Cincotta, Maria Merlino, Luca Nalbone, Anthea Miller, Martina Buda, Graziella Ziino, Antonella Verzera, Concetta Condurso *University of Messina, Messina, Italy*
	12.00	(OL-21) Boosting the confidence in identification in the Flavour and Fragrance field via a Gas Chromatography - Mass Spectrometry -Fourier Transform Infrared Spectroscopy instrument Tania M. G. Salerno[1], Carmelo Coppolino[1], Lorenzo Cucinotta[1], Paola Donato[1], Luigi Mondello[1,2] *[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., Messina, Italy*
12:15 – 12:45		Chairs: Paola Dugo, Luigi Mondello
		Closing Remarks Best Oral and Best Poster presentation sponsored by Taylor and Francis and CRC Press Travel Grant presentation sponsored by IFEAT
13:00 – 14:30		**Lunch -** *Osteria Adagio Adagio*
15:00 – 18:00		**Guided Tour -** Milazzo Monumental Castle (meet at Trifiletti Theatre)

Thursday, 14th September, 2023

17:00 – 18:30 **Poster Presentation – Session A**

(PA-1) *Elettaria cardamomum* (L.) Maton essential oil as potential acetylcholinesterase and butyrylcholinesterase inhibitor: A bio-guided fractionation approach
Marta Pavarino, Cecilia Cagliero, Arianna Marengo, Carlo Bicchi, Patrizia Rubiolo, Barbara Sgorbini
University of Turin, Turin, Italy

(PA-2) Differentiation and Characterization of Aromatic Moroccan Plants by Ambient Mass Spectrometry Combined with Chemometrics
Domenica Mangraviti[1], Francesca Rigano[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., c/o, University of Messina, Messina, Italy

(PA-3) Analysis of oxygen heterocyclic compound in cold-pressed *Citrus* essential oils and fragrances using supercritical fluid chromatography coupled to tandem mass spectrometry method
Maria Rita Testa Camillo[1], Marina Russo[1], Paola Dugo[1,2], Luigi Mondello[1,2.]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., c/o, University of Messina, Messina, Italy

(PA-4) Effect of drying methods on the volatiles profile of Chamomile
Natalia Pachura, Adam Figiel, Antoni Szumny, Jacek Łyczko
Wrocław University of Environmental and Life Sciences, Wrocław, Poland

(PA-5) Chemical composition and biological activity of essential oil from *Platycladus orientalis*
Marta Klemens, Jacek Łyczko, Antoni Szumny, Przemysław Bąbelewski, Tomasz Gębarowski
Wrocław University of Life Science and Environment, Wrocław, Poland

(PA-6) Chemical composition of essential oils from different parts of Azorean *Cryptomeria japonica* (Thunb ex. L.F.) D. Don and their *in vitro* antimicrobial activity
Ana Lima[1], Filipe Arruda[1], Alexandre Janeiro[1], Tânia Rodrigues[1], José Baptista[1], A. Cristina Figueiredo[2], Elisabete Lima[1]
[1]University of Azores, Ponta Delgada, Portugal; [2]Centro de Estudos do Ambiente e do Mar (CESAM Ciências), Faculdade de Ciências da Universidade de Lisboa, Lisboa, Portugal

(PA-7) Application of *Conobea scoparioides* Cham. & Schltdl essential oil in association with parabens as natural cosmetic preservative under a challenge test
Cristina M. T. S. Miguel, Cristina H. Serra, Paulo R. H. Moreno
Universidade de São Paulo, São Paulo, Brazil

(PA-8) Photoselective screens, chlorophyll fluorescence and essential oil composition in basil
Mirian Nomura[1], José Magno Q. Luz[1], Arie F. Blank[2], Carlos R. Rodrigues[3], Sérgio M. Silva[4], Roberta C. Oliveira[1], Mércia F. Alves[2], Daniela A. C. Nizio[2]
[1]Universidade Federal de Uberlândia-UFU, Uberlândia-MG, Brazil; [2]Universidade Federal do Sergipe, São Cristóvão-SE, Brazil; [3]Goiano Federal Institute, Rio Verde-GO, BRAZİL; [4]Universidade Federal dos Vales do Jequitinhonha e Muruci, Unaí-MG, Brazil

(PA-9) In vivo elicitation improves essential oil content and modifies terpene composition in *Salvia rosmarinus* leaves
Ana Claudia Pacheco[1], Mateus Modesto Bosisio[1], Tiago Benedito dos Santos[1], Hélida Mara Magalhães[2], Silvia Gracielle Hulse de Sousa[2], Alessandra Ferreira Ribas[3], Cícero Deschamps[3], Roger Raupp Cipriano[3]
[1]Wester Paulista University (UNOESTE), Presidente Prudente, Brazil; [2]University of Paraná (UNIPAR), Umuarama, Brazil; [3]Federal University of Paraná (UFPR), Curitiba, Brazil

(PA-10) Composition of the Essential Oil from the Needles and Twigs of Organic Tyrolean Spruce - *Picea abies* (L.) H. Karst.
Alin Bosilcov, Clemens Vergeiner, Katrin Joas
Brüder Unterweger GmbH, Assling, Austria

(PA-11) GC-O and Sniff&Trap (S&T): an alternative 2D approach in sensorial aroma investigation
Thomas Albinus[1], Andrea Caretta[2]
[1]GERSTEL GmbH & Co KG., Mülheim an der Ruhr, Germany; [2]SRA Instrument, Milan, Italy

(PA-12) Characterization of avocado leaf volatiles for food flavouring applications
Fabrizio Cincotta, Concetta Condurso, Maria Merlino, Anthea Miller, Martina Buda, Ivana Lidia Bonaccorsi, Antonella Verzera
University of Messina, Messina, Italy

(PA-13) Essential oil components as GC-compatible hydrophobic deep eutectic solvents to extract regulated compounds from water-based fragrances
Cecilia Cagliero, Gaia Bechis, Arianna Marengo, Barbara Sgorbini, Carlo Bicchi, Patrizia Rubiolo
University of Turin, Turin, Italy

(PA-14) IKnife Based on Rapid Evaporative Ionization Mass Spectrometry Technology for the Safeguard of Saffron Quality
Francesca Rigano[1], Cinzia Cafarella[1], Domenica Mangraviti[1], Carmela Sottile[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l., c/o, University of Messina, Messina, Italy

(PA-15) Volatile Compositions of Three Different Commercial Herbal Teas and Statistical Analyses
Damla Kirci[1], Betül Demirci[2]
[1]Selçuk University, Konya, Turkey; [2]Anadolu University, Eskişehir, Turkey

(PA-16) Characterization of the volatile profile of essential oil samples distilled from drug type *Cannabis Sativa L.* flowering tops
Giuseppe Micalizzi[1], Valentina Chiaia[1], Filippo Alibrando[1], Pietro Maida[2], Luigi Mondello[1,3]
[1]University of Messina, Messina, Italy; [2]Arma dei Carabinieri, Department of Scientific Investigations (RIS), Messina, Italy; [3]Chromaleont s.r.l., c/o, University of Messina, Messina, Italy

(PA-17) Evaluation of Arabica and Robusta essential oils on the USA market
Rima Juskelis, Mark Krzeszowiec, Jonathan DeCenzi
NOW Foods, Bloomingdale, USA

(PA-18) Geographic variation and diversity of aroma characteristics of *Alpinia zerumbet*
Eisuke Kuraya[1], Akiko Touyama[2]

[1]*Okinawa College, Nago, Japan;* [2]*Okinawa Flora Co. Ltd., Nago, Japan*

(PA-19) Aroma characteristics of Okinawa finger lime (*Citrus australasica*)
Akiko Touyama[1], Eisuke Kuraya[2]
[1]*Okinawa Flora Co. Ltd., Okinawa Nago, Japan;* [2]*Okinawa College, Okinawa Nago, Japan*

(PA-20) Phytotoxic potential of five essential oils to control *Chenopodium album* L. germination
Nieves Melero-Carnero[1], Natalia Torres-Pagán[1], David López-González[2], Amparo Blázquez[3], Herminio Boira[1], Adela Sánchez-Moreiras[2], Mercedes Verdeguer[1]
[1]*Universitat Politècnica de València, Valencia, Spain;* [2]*Universidade de Vigo, Vigo, Spain;* [3]*Universitat de València, Valencia, Spain*

(PA-21) The Chemical Composition of the Essential Oil of *Asterothamnus molliusculus* Novopokr from the Mongolian Eastern-South Gobi
Shatar Sanduin[1], Altantsetseg Shataryn[1], Nicolas Baldovini[2]
[1]*Institute of Chemistry and Chemical Technology of the Mongolian Academy of Sciences (MAS), Ulaan-Baatar, Mongolia;* [2]*Université Côte d'Azur, Nice, France*

(PA-22) The Chemical Composition of the Essential Oil of *Carduus crispus* L. from Mongolia
Shatar Sanduin[1], Altantsetseg Shataryn[1], Nicolas Baldovini[2]
[1]*Institute of Chemistry and Chemical Technology of the Mongolian Academy of Sciences (MAS), Ulaan-Baatar, Mongolia;* [2]*Université Côte d'Azur, Nice, France*

(PA-23) The Chemical Composition of the Essential Oil of leaves, stems, fruits and roots of the *Peucedanum hystrix* Bge. from the Mongolian Steppe-Gobi
Shatar Sanduin[1], Altantsetseg Shataryn[1], Nicolas Baldovini[2]
[1]*Institute of Chemistry and Chemical Technology of the Mongolian Academy of Sciences (MAS), Ulaan-Baatar, Mongolia;* [2]*Université Côte d'Azur, Nice, France*

(PA-24) Changes in accumulation and spectrum of volatiles in peppermint as result of elicitation
Zámboriné Németh É., Kandoudi W., Tavaszi-Sárosi Sz.
Hungarian University of Agricultural and Life Sciences, Budapest, H

(PA-25) Role of volatile compounds on the specificity of Portuguese honeys
Alexandra M. Machado[1], Maria Graça Miguel[2], Miguel Vilas-Boas[3], Ana Cristina Figueiredo[1]
[1]*Faculdade de Ciências da Universidade de Lisboa (FCUL), Lisboa, Portugal;* [2]*Universidade do Algarve, Campus de Gambelas, Faro, Portugal;* [3]*Instituto Politécnico de Bragança, Campus de Santa Apolónia, Bragança, Portugal*

(PA-26) Herbicidal potential of *Eucalyptus camaldulensis* Dehnh. Essential oil against Mediterranean weed seeds
Natalia Torres-Pagán[1,3], Nieves Melero[1], David López-González[2], Adela Sánchez-Moreiras[2], Alessandra Carrubba[3], Mercedes Verdeguer[1]
[1]*Universitat Politècnica de València, Valencia, Spain;* [2]*Universidade de Vigo, Vigo, Spain;* [3]*Università degli studi di Palermo, Palermo, Italy*

(PA-27) Minerals elements, essential oil composition antimicrobial activity of Algerian *Melissa officinalis* plant.
Fahima Abdellatif[1], Dahmane dahmane[1], Mohammed Messaoudi[2]

[1]Ecole Normale Superieure Kouba, Alger, Algérie; [2]Nuclear Research Centre of Birine, Djelfa, Algeria

(PA-28) Evaluation of half-sib progenies of *Varronia curassavica* harvested in two seasons

Arie F. Blank, Vanderson S. Pinto, W. S. Jesus, José C. F. Sá Filho, Daniela A. C. Nizio, Paulo C. L. Nogueira, Maria T. S. Leite Neta
Federal University of Sergipe, São Cristóvão, Sergipe, Brazil

(PA-29) Antimicrobial activity of essential oils from *Croton grewioides* Baill. on *Xanthomonas campestris* pv. *campestris*

Maria F. Arrigoni-Blank, Taíse C. Rodrigues, Itamara B. Gois, Roberta P. M. Fernandes, Maria T. S. Leite Neta, Arie F. Blank
Federal University of Sergipe, São Cristóvão, Brazil

(PA-30) Scaling down the sample amount in hop essential oil analysis

Humberto R. Bizzo, Rosemar Antoniassi, Paola E. Gama, Marcos J. O. Fonseca
Embrapa Agroindústria de Alimentos, Rio de Janeiro, Brazil

(PA-31) Synergism in two-component insecticides with dillapiole

Murilo Fazolin[1], André F. M. Monteiro[1], Maria E. C. Lima[2], Natalia S. Maisforte[3], Paola E. Gama[4], Humberto R. Bizzo[4].
[1]Embrapa Acre, Rio Branco AC, Brazil; [2]Universidade Federal do Acre, Rio Branco AC, Brazil; [3]Instituto Federal do Acre, Rio Branco AC, Brazil; [4]Embrapa Agroindústria de Alimentos, Rio de Janeiro, Brazil

(PA-32) Lipid peroxidation inhibitory potential of the selected terpenoids

Jelena S Lazarević, Jelena Zvezdanović
University of Niš, Niš, Serbia

(PA-33) The effect of *Arthemisia arborescens* essential oil and its constituents on the inhibition of lipid peroxidation

Jelena S Lazarević, Jelena Zvezdanović, Gordana Stojanović
University of Niš, Niš, Serbia

(PA-34) Plasticizer contamination of commercial Tunisian essential oils: a preliminary study

Angela Giorgia Potortì[1], Vincenzo Lo Turco[1], Ambrogina Albergamo[1], Federica Litrenta[1], Rossana Rando[1], Hedi Ben Mansour[2], Giuseppa Di Bella[1]
[1]University of Messina, Messina, Italy; [2]University of Monastir, Monastir, Tunisia

(PA-35) Commercial Tunisian essential oils as potential food antimicrobials and antioxidants and screening of their element profile

Ambrogina Albergamo[1], Vincenzo Nava[1], Vincenzo Lo Turco[1], Benedetta Sgrò[1], Giovanni Bartolomeo[1], Asma Beltifa[2,3], Giuseppa Di Bella[1]
[1]University of Messina, Messina, Italy; [2]University of Monastir, Monastir, Tunisia; [3]Direction d'hygiène du milieu et de la protection de l'environnement à la direction régionale de santé de Mahdia, Mahdia, Tunisia

(PA-36) Evaluation of Volatile Fraction and Oxygen Heterocyclic Compounds of Mandarin essential oils.

Federica Vento[1], Filippo Alibrando[2], Giuseppe Micalizzi[1], Marina Russo[1], Ivana Bonaccorsi[1], Cristian Reale[1], Paola Dugo[1], Luigi Mondello[1,2]

[1]*University of Messina, Messina, Italy;* [2]*Chromaleont s.r.l. c/o, University of Messina, Messina, Italy*

(PA-37) Evaluation of Volatile Fraction and Oxygen Heterocyclic Compounds of sweet orange essential oils.

Federica Vento[1], Filippo Alibrando[2], Giuseppe Micalizzi[1], Marina Russo[1], Ivana Bonaccorsi[1], Elisa Irrera[1], Paola Dugo[1], Luigi Mondello[1,2]
[1]*University of Messina, Messina, Italy;* [2]*Chromaleont s.r.l. c/o, University of Messina, Messina, Italy*

(PA-38) Characterization of the essential oil, absolute and extract of Egyptian Calendula (*Calendula officinalis* L.)

Federica Vento[1], Emanuela Trovato[1], Domenica Mangraviti[1], Francesca Rigano[1], Hussein A. Fakhry[2], Fatma Salaheldin[2], Paola Dugo[1,3], Luigi Mondello[1,3]
[1]*University of Messina, Messina, Italy;* [2]*A. Fakhry & Co., Cairo, Egypt;* [3]*Chromaleont s.r.l., c/o, University of Messina, Messina, Italy*

(PA-39) Comparison between Satsuma mandarins' (*Citrus unshiu)* essential oil components sampled from Fort Beaufort farms, South Africa

Vuyokazi Mazwi[1], A.O. Oyedeji[1], and O. O. Oyedeji[2]
[1]*Walter Sisulu University, Mthatha, South Africa;* [2]*University of Fort Hare, Alice, South Africa*

(PA-40) Chemical compositions and anti-microbial activity of *Heliotropuim Bacciferum* & *Anethum graveolens* essential oils

Maha Hasni, Abdelmadjid Saidani, Nasser Belboukhari, Khaled Sekkoum, Mebarka Belboukhari, Abdelaziz Berghioua
University of bechar, Algeria

Friday, 15th September, 2023

17:00 – 18:30 **Poster Presentation – Session B**

(PB-1) Effect of wintergreen essential oil and its solution in acute dermatitis in vivo model
Eszter Csikós[1], Sarah Shubail[1], Ágnes Kemény[1], Margita Szilágyi-Utczás[2], Györgyi Horváth[1]
[1]University of Pécs, Pécs, Hungary; [2]Hungarian University of Sports Science, Center of Sports Nutrition Science, Budapest, Hungary

(PB-2) Essential oil composition of Lithraea molleoides (Vell.) Engler (Anacardiaceae), a controversial medicinal, edible, and allergenic species from South America
Manuel Minteguiaga[1,2], Eduardo Dellacassa[2], Cecilia Rodríguez-Rego[2], Enzo Fagúndez[2], Fernando Ferreira[2], Marta Pavarino[1], Patrizia Rubiolo[1], Cecilia Cagliero[1], Barbara Sgorbini[1]
[1]University of Turin, Turin, Italy; [2]University of the Republic, Tacuarembó' /Montevideo, Uruguay

(PB-3) Evaluation of chemical composition and cytotoxic activity of essential oil isolated from Macedonian *Rosmarinus officinalis*
Bojana Kiprijanovska, Zoran Zivikj, Kristina Shutevska, Tanja Petreska Ivanovska, Iskra Davkova, Ana Trajkovska, Gjose Stefkov, Ivana Cvetkovikj Karanfilova, Marija Karapandzova
University in Skopje, Skopje, Republic of North Macedonia

(PB-4) Volatile constituents and cytotoxic screening using BSLA of commercially available Thymi aetheroleum
Natasa Draskovik, Zoran Zivikj, Ana Marija Bajatovska, Tatjana Kadifkova Panovska, Iskra Davkova, Ana Trajkovska, Ivana Cvetkovikj Karanfilova, Svetlana Kulevanova, Marija Karapandzova
University in Skopje, Skopje, Republic of North Macedonia

(PB-5) Biological activity and compositional analysis of essential oil of *Homalomena aromatica Schott*: A high value aromatic species from Northeast India
Raghu Tamang[1,2], Tanmita Gupta[1,2], Twahira Begum[2], Roktim Gogoi[1], Neelav Sarma[1], Vikash Kumar Choubey[1] and Mohan Lal[1]
[1]CSIR-North East Institute of Science and Technology (NEIST), Jorhat Assam, INDIA; [2]AcSIR-Academy of Scientific and Innovative Research, Ghaziabad, Uttar Pradesh, India

(PB-6) *Kaempferia parviflora* Wall, ex Baker (Black ginger) a high value ethnomedicinal plant endemic to Northeast region of India: Its rhizome essential oil chemical makeup & pharmacological potential evaluation
Twahira Begum[2], Roktim Gogoi[1,2], Neelav Sarma[1,2], Mohan Lal[2]
[1]AcSIR-Academy of Scientific and Innovative Research, Ghaziabad, Uttar Pradesh, India; [2]CSIR-North East Institute of Science and Technology (NEIST), Jorhat Assam, India

(PB-7) Identification of a Novel Myrcene and Methyl iso-Eugenol Rich Essential Oil Variant (Jor Lab L-11) of Lemongrass (*Cymbopogon flexuosus L.)*
Mohan Lal, Twahira Begum, Sunita Munda
CSIR-North East Institute of Science and Technology, Jorhat, Assam -785006, India

(PB-8) Chemical composition and bioactivities of Azorean *Cryptomeria japonica* essential oils extracted by two different methodologies
Alexandre Janeiro[1], Tanner Wortham[2], Filipe Arruda[1], Ana Lima[1], Tânia Rodrigues[1], José Silvino Rosa[1], José Baptista[1], Elisabete Lima[1]
[1]Azores University, Angra do Heroismo, Portugal; [2]The Perfumery, 621 Park East Bldv. New Albany, IN, Usa

(PB-9) Variability in chemical composition and antibacterial activity of *Cryptomeria japonica* essential oil from different locations on São Miguel Island, Azores
Filipe Arruda[1], Tanner Wortham[2], Ana Lima[1], Alexandre Janeiro[1], Tânia Rodrigues[1], José S. Rosa[1], José Baptista[1], Elisabete Lima[1]
[1]Azores University, Angra do Heroismo, Portugal; [2]The Perfumery, 621 Park East Bldv. New Albany, IN, Usa

(PB-10) Chemical composition and antioxidant activity of *Juniperus* species found in Indian Himalayan Region
Abhishek Gupta[1,3], Baleshwar Meena[2], Abhishek K. Dwivedy[3], Tikam Singh Rana[1]
[1]CSIR-National Botanical Research Institute, Rana Pratap Marg, Lucknow, India; [2]CSIR-Traditional Knowledge Digital Library, New Delhi, India; [3]Department of Botany, Banaras Hindu University, India

(PB-11) Do not waste the thyme! Essential oils and distillation by-products of different *Thymus* taxa
Zsuzsanna Pluhár, Karim Etri, Klára Ruttner, Dorisz Boros, Beáta Gosztola
Hungarian University of Agriculture and Life Science, Budapest, Hungary

(PB-12) Comparison of the two EO extraction methods and its influence on yield and composition of *Mentha×piperita* cv. Kristinka
Ivan Kron[1], Saroj Kumar Chaudhary[2], Jozef Fejér[3], Daniela Gruľová[3]
[1]Training & Consulting Ltd., Žilina, Slovakia; [2]University, Kritipur, Kathmandu, Nepal; [3]University of Presov, Slovakia

(PB-13) Development of a green pesticide based on essential oils for grain crops in Brazil
Nilson B. Maia, Jose R. Gonçalves, Sergio P. Borlina
Linax Oleos Essenciais, Votuporanga, Brazil

(PB-14) Effects of chopping and different preservation methods on the volatiles and organoleptic properties of Parsley (Petroselinum crispum (Mill) Nym. var. neapolitanum) leaves
Beáta Gosztola, Zoltán Kovács, Zsanett Bodor, Urbashi Hazarika
Hungarian University of Agriculture and Life Sciences (MATE), Budapest, Hungary

(PB-15) Does essential oil from invasive Solidago canadensis L. have herbicidal influence on the selected weeds?
Beata Baranová[1], Marta Kotuła[2], Saroj Kumar Chaudhary[3], Joanna Kapusta-Duch[2], Barbara Borczak[2], Daniela Gruľová[1]
[1]University of Presov, Slovakia; [2]University of Kraków, Poland; [3]Tribhuvan University, Kritipur, Kathmandu, Nepal

(PB-16) Testing of the new potential method for the evaluation of the essential oil antifeedant activity using yellow worm larvae
Beáta Baranová, Daniela Gruľová
University of Presov, Slovakia

(PB-17) Application of Machine Learning algorithms to essential oils to develop quantitative composition-activity relationships (QCAR) classification models.
Roberta Astolfi, Alessandra Oliva, Filippo U. Sapienza, Rino Ragno
Sapienza University, Rome, Italy

(PB-18) Investigating the Antioxidant Potential of Essential Oils Using PALMSENS-Assisted Electrochemical Analysis
Filippo U. Sapienza, Danilo Dini, Rino Ragno
Sapienza University, Rome, Italy

(PB-19) Antimicrobial evaluation of Mentha piperita & Thymus serpyllum & Pelargonium graveolens essential oil combinations with chlorhexidine for mouthwash application
Ayşe Esra Karadağ[1], Sümeyye Elif Kahya[1], Ayşegül Çaşkurlu[1], Betül Demirci[2], Fatih Demirci[2,3]
[1]Istanbul Medipol University, Beykoz, Istanbul, Türkiye; [2]Anadolu University, Eskişehir, Türkiye; [3]Eastern Mediterranean University, Famagusta, N. Cyprus, Türkiye

(PB-20) Subcritical extraction of *Rosa alba* L. with mode influence
Ana Dobreva[1], Daniela Nedelcheva-Antonova[2], Nenko Nenov[3]
[1]Institute for Roses and Aromatic Plants, Kazanlak, Bulgaria; [2]Bulgarian Academy of Sciences, Sofia, Bulgaria; [3]InnoSolv Ltd, Plovdiv, Bulgaria

(PB-21) Yield and Composition of Rose Oil and Hydrosol from the Industrial Oil-Bearing Roses in Bulgaria
Ana Dobreva[1], Daniela Nedeltcheva-Antonova[2]
[1]Institute for Roses and Aromatic Plants, Kazanlak, Bulgaria; [2]Bulgarian Academy of Sciences, Sofia, Bulgaria

(PB-22) A comparative chemical profiling of essential oils from oil-bearing rose varieties, grown in Bulgaria and Crimea
Daniela Nedeltcheva-Antonova[1], Kamelia Gechovska[1], Viktor Zolotilov[2], Natalya Nevkrytaya[2], Liudmil Antonov[1]
[1]Bulgarian Academy of Sciences, Sofia, Bulgaria; [2]Research Institute of Agriculture of Crimea, Simferopol, Russia

(PB-23) Alternative for perfume analysis: GC×GC-TOFMS with hydrogen carrier gas
Lena M. Dubois, Nick Jones, Dmitrii Rakov, Sebastiano Panto
LECO European Application & Technology Center, Berlin, GERMANY

(PB-24) Effects of Inhalation of Essential Oils (Phytincide) extracted from *Pinus densiflora* and *Chamaecyparis obtuse* on the Physiological and Psychological Stability of College Students
Bum-Jin Park, Hye-Jung Gho, Dawou Jung
Chungnam National University, Republic of Korea

(PB-25) Hydrodistillation wastewaters: a source of biologically active compounds
Edoardo Napoli[1], Giuseppe Ruberto[1], Alessandra Carrubba[2], Mauro Sarno[2], Claudia Muscarà[3], Antonio Speciale[3], Mariateresa Cristani[3], Francesco Cimino[3], Antonella Saija[3]
[1]Institute of Biomolecular Chemistry – National Research Council (ICB-CNR), Catania, Italy; [2]University of Palermo, Palermo, Italy; [3]University of Messina, Messina, Italy

(PB-26) *Inula chrithmoides* and *Chrithmum maritimum* – GC/MS analyses of essential oil and hydrolates

Olivera Politeo[1], Andrea Bakaric[1], Pavao Curlin[1], Marijana Popovic[2]
[1]University of Split, Split, Croatia; [2]Institute for Adriatic Crops and Karst Reclamation, Split, Croatia

(PB-27) Volatile constituents of two Corsican liverworts: Diplophyllum albicans and Scapania undulata. Evaluation of their allelopathic effect
Manal El Ali[1], Anais Pannequin[1], Aura Tintaru[2], Alain Muselli[1]
[1]Université de Corse, Corte, France; [2]Aix-Marseille Université, CNRS, Marseille, France

(PB-28) Phytotoxic essential oils, sesquiterpene lactones from the roots of the invasives *X. italicum* and *X. spinosum*
Sylvain Baldi, Manal El Ali, Pascale Bradesi, Alain Muselli
Université de Corse, Corte, France

(PB-29) Chemical composition and chemical variability of Senecio cineraria essential oil
Stephane Andreani[1], Manal El Ali[2], Pascale Bradesi[2], Alain Muselli[2]
[1]Office de Dèveloppemen Agricole et Rural de la Corse, Bastia, France; [2]Université de la Corse, Corte, France

(PB-30) Natural plant extracts as antibacterial agents against periodontal pathogens
Zuzanna Bacińska, Daniel J. Strub, Lucyna Balcerzak
Wroclaw University of Science and Technology, Wroclaw, POLAND

(PB-31) Transformation and antimicrobial activity of natural and volatile phenolic compounds and their derivatives
Kinga Baberowska, Alicja K. Surowiak, Daniel J. Strub
Wroclaw University of Science and Technology, Wroclaw, POLAND

(PB-32) Phytochemical composition, analgesic and anti-inflammatory properties of *Pelargonium peltatum* (L.) L'Hérit. essential oils from Eastern Cape, South Africa
P. Rungqu[1], A.O. Oyedeji[2], M. Gondwe[2], O.O. Oyedeji[1]
[1]University of Fort Hare, Alice, South Africa; [2]Walter Sisulu University, Mthatha, South Africa

(PB-33) Chemical composition, analgesic and anti-inflammatory activities of Hypoxis hemerocallidea Fisch. & C.A. Mey from Eastern Cape, South Africa
P. Rungqu[1], A.O. Oyedeji[2], M. Gondwe[2], O.O. Oyedeji[1]
[1]University of Fort Hare, Alice, South Africa; [2]Walter Sisulu University, Mthatha, South Africa

(PB-34) Antibacterial activity of leather enriched with oregano essential oil under dynamic contact conditions
Elzbieta Bielak[1], Justyna Sygula-Cholewinska[2]
[1]Department of Non-food Product Quality and Safety; [2]Cracow University of Economics, Krakow, Poland

(PB-35) *In vitro* and *in situ* efficacy of a nanobiopesticide formulated by combining essential oils of *Syzygium aromaticum* and *Zingiber officinale* (70/30) against pathogenic *Lasiodiplodia theobromae* associated with post-harvest Carica papaya L rot in Cameroon
Davy Moussango[1], Sameza Modeste[1], Mabou Christelle[2], Ampere Bedine[2], Jazet Dogmo[1], Nabin Kumar[3]
[1]University of Doula, Doula, Cameroon; [2]University of Yaoundé, Cameroon; [4]Environment and Sustainability Department Institute of Minerals and Materials Technology, Bhubaneswar, India

(PB-36) Fast and Reliable Identification of Non-Volatile Residue of Citrus Essential Oils by Supercritical Fluid Chromatography Coupled with Electron Ionization Mass Spectrometry
Roberta La Tella[1], Francesca Rigano[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l. c/o, University of Messina, Messina, Italy

(PB-37) Comprehensive Chemical Characterization of Unconventional Cold Pressed Seed Oils
Cinzia Cafarella[1], Francesca Rigano[1], Emanuela Trovato[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l. c/o, University of Messina, Messina, Italy

(PB-38) A fast and eco-friendly HPLC-MS/MS method to determine oxygen heterocyclic compounds in *Citrus* essential oils
Giovanna Cafeo[1], Marina Russo[1], Paola Donato[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]University of Messina, Messina, Italy; [2]Chromaleont s.r.l c/o., University of Messina, Messina, Italy

(PB-39) Development of an environmental-friendly SFC/PDA for the quantification of oxygen heterocyclic compound in cold-pressed *Citrus* essential oils
Antonella Satira[1], Marina Russo[2], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]Chromaleont s.r.l c/o., University of Messina, Messina, Italy; [2]University of Messina, Messina, Italy

(PB-40) Development of Quality Standards for Rose Essential Oil Growing in Saudi Arabia by Using Metabolomics Fingerprinting
Mohamed AlAjmi, Dhiab Aldosari
King Saud University, Riyadh, Saudi Arabia

(PB-41) Essential Oils Diversity of Zingiberaceae Plants from Vietnam
Le Thi Huong[1], Do Ngoc Dai[2,3], Isiaka Ajani Ogunwande[4]
[1]Vinh University, Vinh City, Vietnam; [2]Vietnam Academy of Science and Technology, Hanoi, Vietnam; [3]Nghe An College of Economics, Vinh City, Vietnam; [4]Foresight Institute of Research and Translation, Ibadan, Nigeria

(PB-42) Chemical characterization of Finger Lime (Citrus australasica L.) essential oil and hexane extract
Filippo Alibrando[1], Giovanna Cafeo[2], Marina Russo[2], Paola Dugo[1, 2], Luigi Mondello[1, 2]
[1]Chromaleont s.r.l c/o., University of Messina, Messina, Italy; [2]University of Messina, Messina, Italy

(PB-43) Bergamot essential oil: characterization of volatile fraction, Oxygen Heterocyclic Compounds and enantiomeric distribution of volatile components.
Filippo Alibrando[1], Federica Vento[2], Giuseppe Micalizzi[2], Marina Russo[2], Ivana Bonaccorsi[2], Micaela Galletta[2], Paola Dugo[1, 2], Luigi Mondello[1, 2]
[1]Chromaleont s.r.l c/o., University of Messina, Messina, Italy; [2]University of Messina, Messina, Italy

(PB-44) Lemon essential oil: characterization of volatile fraction, Oxygen Heterocyclic Compounds and enantiomeric distribution of volatile components.
Filippo Alibrando[1], Federica Vento[2], Giuseppe Micalizzi[2], Marina Russo[2], Ivana Bonaccorsi[2], Valentina Chiaia[2], Paola Dugo[1, 2], Luigi Mondello[1, 2]
[1]Chromaleont s.r.l c/o., University of Messina, Messina, Italy; [2]University of Messina, Messina, Italy