



CURRICULUM VITAE

Zoccali Mariosimone, PhD

Last Name:	Zoccali
First Name:	Mariosimone
Date of Birth:	02/09/1986
Place of Birth:	Reggio Calabria (RC)
Current Position:	Assistant Professor, University of Messina, Italy
E-mail address:	mzoccali@unime.it
Nationality:	Italian

EDUCATION/WORK

- 10 July 2019 – Research Fellow at the Department of Mathematical and Computer Science, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy.
- 31 August 2017 – 9 July 2019 - Post-doctorate position “Valorization of Italian OLive products through INnovative analytical tools- VIOLIN” funded by AGER.
- May 2015 - July 2017 – GC-MS specialist at Chromaleont srl.
- 23 December 2013 – April 2015 - Post-doctorate position “identification and quantification of biologically active compounds isolated from the by-products of agricultural and food industries contained in food and cosmetic formulations” (16 months).
- January 2011 - March 2014 - Ph.D. title in “Food Chemistry and Safety” with a dissertation entitled “Development of multidimensional separation-science methods for complex food analysis”. At the Department of Pharmaceutical Sciences and Health Products, University of Messina, Messina, Italy.
- January 2011 - achieving the qualification to practice as a Pharmacist.
- September 2005 - October 2010 - 2nd degree in Pharmaceutical Chemistry and Technology at the University of Messina in 2010 with a grade of 110/110, discussing a thesis entitled "Pressure balancing Multidimensional Gas Chromatography for the analysis of complex samples".

- June 2005 – Chemical high school degree (grade of 100/100) at the Istituto Tecnico Industriale Statale “A.Panella”, Reggio Calabria (Italy).

TEACHING

Abitilitato a professore di II fascia nel SC 03/A1 in data 09/01/2020.

Qualified as a 2nd class professor in SC 03/A1 in 09/01/2020.

From 2019-20 to 2020-21, holder of the course “Advanced analytical methodologies” (4+2 CFU), master’s degree in “Chemistry”, at the University of Messina.

Starting from 2019-20, Course of Advanced analytical techniques (1 CFU) at the PhD course in Chemical Science (XXXVI), at the University of Messina.

Starting from 2020-21, holder of the course “Health food analytical techniques” (5+1 CFU), bachelor degree in “Scienze Nutraceutiche ed Alimenti Funzionali”, at the University of Messina.

From 2020-21 to 2021-22, member of the teaching board of the PhD program in Chemical Sciences, at the University of Messina.

Starting 2021-22, holder of the course “Advanced analytical chemistry laboratory” (4+2 CFU), master’s degree in “Chemistry”, at the University of Messina.

Mentor of 1 PhD student.

Supervisor of 5 students (3 Master Degree).

AWARDS

- **The Analytical Scientist Innovation Awards (TASIA) 2015**
- **Travel award by CASSS (California Separation Science Society) 2015**
- **Best Poster Award at ISCC 2016 from Wiley**
- **Best Poster Award at HPLC 2017 from Springer**
- **Travel award by SEPSCI (Interdivisional Separations Science Group of the Italian Chemical Society) for HPLC 2018**
- **Best Poster Award at HPLC 2018 from Agilent**
- **Medal "Gruppo Interdivisionale di Scienza delle Separazioni – Premio Giovane Ricercatore 2018", Gruppo Interdivisionale di Scienza delle Separazioni della SCI**
- **Finalist of the Csaba Horvath Young Scientist Award – HPLC 2019**
- **FFABR Unime 2020**
- **Recognized as “Rising Stars” from the journal LCGC.**
- **Medal "Premio Giovane Ricercatore 2021", Divisione Chimica Analitica della Società Chimica Italiana.**
- **John B. Phillips Award 2022, 19th International GC×GC Symposium.**

PERSONAL SKILLS

- **Languages:**

Italian: Mother tongue

	Speaking	Reading	Writing	Understanding
English:	Good	Good	Good	Good

TECHNICAL SKILLS AND COMPETENCES

- Excellent knowledge of Office packages (Word, Excel, Powepoint) and equivalent ones, Internet browsers and e-mail
- Excellent knowledge of commercially available operative systems (Windows, MacOS).

PAPERS

1. Peter Quinto Tranchida, **Mariosimone Zoccali**, Giorgia Purcaro, Sabrina Moret, Lanfranco Conte, Marco Beccaria, Paola Dugo, Luigi Mondello.
A rapid multidimensional liquid-gas chromatography method for the analysis of mineral oil saturated hydrocarbons in vegetable oils.
J. Chromatogr. A 2011; 1218:7476-80.
2. Peter Q. Tranchida, **Mariosimone Zoccali**, Paola Dugo, and Luigi Mondello
Rapid multidimensional liquid-gas chromatography for the analysis of saturated hydrocarbon contamination in foods containing vegetable oil.
LC-GC Europe 2012 25(4):20-25.
3. Luigi Mondello, **Mariosimone Zoccali**, Giorgia Purcaro, Flavio Antonio Franchina, Danilo Sciarrone, Sabrina Moret, Lanfranco Conte, Peter Quinto Tranchida.
Determination of saturated-hydrocarbon contamination in baby foods by using on-line liquid-gas chromatography and off-line liquid chromatography-comprehensive gas chromatography combined with mass spectrometry.
J. Chromatogr. A 2012 1259:221-226.
4. Peter Quinto Tranchida, **Mariosimone Zoccali**, Flavio Antonio Franchina, Paola Dugo, Luigi Mondello.
Measurement of fundamental chromatography parameters in conventional and split-flow comprehensive two-dimensional gas chromatography-mass spectrometry: a focus on the importance of second-dimension injection efficiency.
J. Sep. Sci. 2013 36:212-218.
5. Giorgia Purcaro, **Mariosimone Zoccali**, Peter Quinto Tranchida, Laura Barp, Sabrina Moret, Lanfranco Conte, Paola Dugo, Luigi Mondello.
Comparison of two different multidimensional liquid-gas chromatography interfaces for the determination of mineral oil saturated hydrocarbon in foodstuff.

Anal. Bioanal. Chem. 2013; 405:1077-1084.

6. Peter Quinto Tranchida, **Mariosimone Zoccali**, Flavio Antonio Franchina, Ivana Bonaccorsi, Paola Dugo, Luigi Mondello.
Fast gas chromatography combined with a high-speed triple quadrupole mass spectrometer for the analysis of unknown and target citrus essential oil volatiles.
J. Sep. Sci. 2013; 36:511-516.
7. Peter Quinto Tranchida, Flavio Antonio Franchina, **Mariosimone Zoccali**, Sebastiano Pantò, Danilo Sciarrone, Paola Dugo, Luigi Mondello.
Untargeted and targeted comprehensive two-dimensional GC analysis using a novel unified high-speed triple quadrupole mass spectrometer.
J. Chromatogr. A 2013; 1278:153-159.
8. Peter Quinto Tranchida, **Mariosimone Zoccali**, Luisa Schipilliti, Danilo Sciarrone, Paola Dugo, Luigi Mondello.
Solid-phase microextraction-fast gas chromatography combined with a high-speed triple quadrupole mass spectrometer for targeted and untargeted food analysis.
J. Sep. Sci. 2013 36:2145-2150.
9. Peter Quinto Tranchida, Flavio Antonio Franchina, **Mariosimone Zoccali**, Ivana Bonaccorsi, Francesco Cacciola, Luigi Mondello.
A direct sensitivity comparison between flow-modulated comprehensive 2- and 1-D GC in untargeted and targeted MS based experiments.
J. Sep. Sci. 2013 36:2746-2752.
10. Peter Quinto Tranchida, **Mariosimone Zoccali**, Ivana Bonaccorsi, Paolo Dugo, Luigi Mondello, Giovanni Dugo.
The Off-Line Combination Of High Performance Liquid Chromatography And Comprehensive Two-Dimensional Gas Chromatography-Mass Spectrometry: A Powerful Approach For Highly-Detailed Essential Oil Analysis
J. Chromatogr. A 2013 1305:276-284.
11. Peter Q. Tranchida, **Mariosimone Zoccali**, Flavio A. Franchina, Antonella Cotroneo, Paolo Dugo, Luigi Mondello.
Gas velocity at the point of re-injection: an additional parameter in comprehensive two-dimensional gas chromatography optimization.
J. Chromatogr. A 2013 1314:216-223.
12. **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
On-Line Combination of High Performance Liquid Chromatography with Comprehensive Two-Dimensional Gas Chromatography-Triple Quadrupole Mass Spectrometry: A Proof of Principle Study.
Anal. Chem. 2015 87:1911-1918.
13. Laura Barp, Giorgia Purcaro, Flavio A. Franchina, **Mariosimone Zoccali**, Danilo Sciarrone, Q. Tranchida, Luigi Mondello.
Determination of phthalate esters in vegetable oils using direct immersion solid-phase microextraction and fast gas chromatography coupled with triple quadrupole mass spectrometry.
Analytica Chimica Acta 2015 887:237-244.
14. **Mariosimone Zoccali**, Ivana L. Bonaccorsi, Peter Q. Tranchida, Paola Dugo, Luigi Mondello, Giacomo Dugo.
Analysis of the sesquiterpene fraction of citrus essential oils by using the off-line combination

of high performance liquid chromatography and gas chromatography-based methods: a comparative study.

Flavour Fragr. J. 2015, 30, 411–422.

15. **Mariosimone Zoccali**, Laura Barp, Marco Beccaria, Danilo Sciarrone, Giorgia Purcaro, Luigi Mondello.
Improvement of mineral oil saturated and aromatic hydrocarbons determination in edible oil by liquid-liquid-gas chromatography with dual detection.
J. Sep. Sci. 2015 39, 623-631.
16. **Mariosimone Zoccali**, Peter Q. Tranchida, Ivana L. Bonaccorsi, Paola Dugo, Luigi Mondello, Giovanni Dugo.
Detailed Profiling of the Volatile Oxygenated Fraction of Mandarin Essential Oils by Using the Off Line Combination of High-Performance Liquid Chromatography and Comprehensive Two-Dimensional Gas Chromatography-Mass Spectrometry.
Food Anal. Method 2017 10, 1106-1116.
17. **Mariosimone Zoccali**, Giorgia Purcaro, Schepis Antonino, Peter Quinto Tranchida, Luigi Mondello.
Miniaturization of the QuEChERS Method in the Fast Gas Chromatography-Tandem Mass Spectrometry Analysis of Pesticide Residues in Vegetables.
Food Anal. Method. 2017 10, 2636-2645.
18. **Mariosimone Zoccali**, Kevin A. Schug, Phillip Walsh, Jonathan Smuts, Luigi Mondello.
Flow-modulated comprehensive two-dimensional gas chromatography combined with a vacuum ultraviolet detector for the analysis of complex mixtures.
J. Chromatogr. A 2017 1497, 135-143.
19. Daniele Giuffrida, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
Apocarotenoids determination in *Capsicum chinense Jacq.* cv. Habanero, by supercritical fluid chromatography-triple-quadrupole/mass spectrometry.
Food Chem. 2017 231, 316-323.
20. **Mariosimone Zoccali**, Daniele Giuffrida, Paola Dugo, Luigi Mondello.
Direct online extraction and determination by supercritical fluid extraction-chromatography-mass spectrometry of targeted carotenoids from red Habanero peppers (*Capsicum chinense Jacq.*).
Journal of Separation Science. 2017 40, 3905-3913.
21. Danilo Sciarrone, Daniele Giuffrida, Archimede Rotondo, Giuseppe Micalizzi, **Mariosimone Zoccali**, Sebastiano Pantò, Paola Donato, Rosana Goncalves Rodrigues-das-Dores, Luigi Mondello.
Quali-quantitative characterization of the volatile constituents in *Cordia verbenacea* D.C. essential oil exploiting advanced chromatographic approaches and nuclear magnetic resonance analysis. J. Chromatogr. A. 2017; 1524, 246-253.
22. **Mariosimone Zoccali**, Simone Cappello, Luigi Mondello.
Multilevel characterization of marine microbial biodegradation potentiality by means of flow-modulated comprehensive two-dimensional gas chromatography combined with a triple quadrupole mass spectrometer.
J. Chromatogr. A. 2018; 1547, 99-106.
23. Daniele Giuffrida, **Mariosimone Zoccali**, Adriana Arigò, Francesco Cacciola, Coralia Osorio Roa, Paola Dugo, Luigi Mondello.
Comparison of different analytical techniques for the analysis of carotenoids in tamarillo (*Solanum betaceum Cav.*).

24. Marina Russo, Paola Dugo, Chiara Fanali, Laura Dugo, **Mariosimone Zoccali**, Luigi Mondello, Laura De Gara.
Use of an Online Extraction Technique Coupled to Liquid Chromatography for Determination of Caffeine, Tea, Cocoa.
Food Anal. Method. 2018; 11, 2637-2644.
25. **Mariosimone Zoccali**, Adriana Arigò, Marina Russo, Fabio Salafia, Paola Dugo, Luigi Mondello.
Characterization of Limonoids in Citrus Essential Oils by Means of Supercritical Fluid Chromatography Tandem Mass Spectrometry.
Food Anal. Method. 2018; 11, 3257-3266.
26. Danilo Sciarrone, Antonino Schepis, **Mariosimone Zoccali**, Paola Donato, Federico Vita, Donato Creti, Amedeo Alpi, Luigi Mondello.
Multidimensional Gas Chromatography Coupled to Combustion-Isotope Ratio Mass Spectrometry/Quadrupole MS with a Low-Bleed Ionic Liquid Secondary Column for the Authentication of Truffles and Products Containing Truffle.
Anal. Chem. 2018 90, 6610-6617.
27. **Mariosimone Zoccali**, Daniele Giuffrida, Fabio Salafia, Salvatore Vincenzo Giofrè, Luigi Mondello.
Carotenoids and apocarotenoids determination in intact human blood samples by online supercritical fluid extraction-supercritical fluid chromatography-tandem mass spectrometry.
Anal. Chim. ACTA 2018; 1032, 40-47.
28. **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
On-line liquid chromatography-comprehensive two dimensional gas chromatography with dual detection for the analysis of mineral oil and synthetic hydrocarbons in cosmetic lip care products.
Anal. Chim. ACTA 2019; 1048, 221-226.
29. **Mariosimone Zoccali**, Barbara Giocastro, Peter Q. Tranchida, Luigi Mondello.
Use of a recently developed thermal modulator within the context of comprehensive two-dimensional gas chromatography combined with time-of-flight mass spectrometry: Gas flow optimization aspects.
J. Sep. Sci. February 2019: 42, 637-778
30. Peter Q. Tranchida, Ivan Aloisi, Barbara Giocastro, **Mariosimone Zoccali**, Luigi Mondello.
Comprehensive two-dimensional gas chromatography-mass spectrometry using milder electron ionization conditions: A preliminary evaluation.
J. Chromatogr. A 2019: 1589, 134-140.
31. Arena Katia, Cacciola Francesco, Mangraviti Domenica, **Mariosimone Zoccali**, Rigano Francesca, Marino Nino, Dugo Paola, Luigi Mondello.
Determination of the polyphenolic fraction of Pistacia vera L. kernel extracts by comprehensive two-dimensional liquid chromatography coupled to mass spectrometry detection.
Anal. Bioanal. Chem. 2019: 411, 4819-4829.
32. **Mariosimone Zoccali**, Paola Donato, Luigi Mondello.
Recent advances in the coupling of carbon dioxide-based extraction and separation techniques.
TRAC-Trend. Anal. Chem. 2019: 116, 158-165.
33. **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Fast Gas Chromatography-Mass Spectrometry: A Review Of The Last Decade.

34. **Mariosimone Zoccali**, Daniele Giuffrida, Fabio Salafia, Carmen Socaciu, Kari Skjånes, Paola Dugo, Luigi Mondello.
First Apocarotenoids Profiling of Four Microalgae Strains.
Antioxidants 2019: 8(7), 209, 1-10.
35. **Mariosimone Zoccali**, Barbara Giocastro, Ivana L. Bonaccorsi, Alessandra Trozzi, Peter Q. Tranchida, Luigi Mondello.
In-Depth Qualitative Analysis of Lime Essential Oils Using the Off-Line Combination of Normal Phase High Performance Liquid Chromatography and Comprehensive Two-Dimensional Gas Chromatography-Quadrupole Mass Spectrometry.
Foods 2019: 8(11), 580, 1-10.
36. Daniella C. Murador, Fabio Salafia, **Mariosimone Zoccali**, Paula L. G. Martins, Antônio G. Ferreira, Paola Dugo, Luigi Mondello, Veridiana V. de Rosso, Daniele Giuffrida.
Green Extraction Approaches for Carotenoids and Esters: Characterization of Native Composition from Orange Peel.
Antioxidants 2019: 8, 613, 1-18.
37. **Mariosimone Zoccali**, Daniele Giuffrida, Roberta Granese, Fabio Salafia, Paola Dugo, Luigi Mondello.
Determination of free apocarotenoids and apocarotenoid esters in human colostrum.
Anal. Bioanal. Chem 2020: 412:1335–1342.
38. Ivan Aloisi, Tiago Schena, Barbara Giocastro, **Mariosimone Zoccali**, Peter Q. Tranchida, Elina Bastos Caramão, Luigi Mondello.
Towards the determination of an equivalent standard column set between cryogenic and flow-modulated comprehensive two-dimensional gas chromatography.
Anal. Chim. ACTA 2020: 1105, 231-236.
39. Federico Vita, Beatrice Giuntoli, Edoardo Bertolini, Cosimo Taiti, Elettra Marone, Chiara D'Ambrosio, Emanuela Trovato, Danilo Sciarrone, **Mariosimone Zoccali**, Raffaella Balestrini, Andrea Scaloni, Luigi Mondello, Stefano Mancuso, Massimo Alessio, Amedeo Alpi.
Tuberomics: A molecular profiling for the adaption of edible fungi (*Tuber magnatum* Pico) to different natural environments.
BMC Genomics 2020:21, 1-25.
40. **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
A lab-developed interface for liquid-gas chromatography coupling based on the use of a modified programmed-temperature-vaporizing injector.
Journal of Chromatography A 2020:1622, 1-6.
41. Ivan Aloisi, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Analysis of Organic Sulphur Compounds in Coal Tar by Using Comprehensive Two-Dimensional Gas Chromatography-High Resolution Time-of-Flight Mass Spectrometry.
Separations 2020:7, 26, 1-9.
42. Ivan Aloisi, **Mariosimone Zoccali**, Paola Dugo, Peter Q. Tranchida, Luigi Mondello.
Fingerprinting of the unsaponifiable fraction of vegetable oils by using cryogenically-modulated comprehensive two-dimensional gas chromatography-high resolution time-of-flight mass spectrometry.
Food Anal. Method. 2020:13, 1523-1529.

43. **Mariosimone Zoccali**, Daniele Giuffrida, Fabio Salafia, Francesca Rigano, Paola Dugo, Monica Casale, Luigi Mondello.
Apocarotenoids profiling in different Capsicum species.
Food Chemistry. 2021:334, 127595.
44. Barbara Giocastro, Ivan Aloisi, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Cryogenic- and Flow-Modulation Comprehensive Two-Dimensional Gas Chromatography–
Mass Spectrometry: Obtaining Similar Chromatographic Performances.
LC-GC North America. 2020:38, 548-558.
45. Daniele Giuffrida, **Mariosimone Zoccali**, Luigi Mondello.
Recent developments in the carotenoid and carotenoid derivatives chromatography-mass
spectrometry analysis in food matrices.
TRAC-Trend. Anal. Chem. 2020:132, 1160474.
46. Benedikt A. Weggler, Lena M. Dubois, Nadine Gawlitta, Thomas Gröger, John Moncur, Luigi
Mondello, Steven Reichenbach, Peter Tranchida, Zhijun Zhao, Ralf Zimmermann, **Mariosimone
Zoccali**, Jean-François Focant.
A unique data analysis framework and open source benchmark data set for the analysis of
comprehensive two-dimensional gas chromatography software.
J. Chromatogr. A 2021:1635, 461721.
47. Barbara Giocastro, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Evaluation of different internal diameter coated modulation columns within the context of solid-
state modulation.
J. Sep. Sci. 44 (2021) 1923–1930.
48. Giuseppe Micalizzi, Filippo Alibrando, Federica Vento, Emanuela Trovato, **Mariosimone Zoccali**,
Paolo Guarnaccia, Paola Dugo, Luigi Mondello.
Development of a Novel Microwave Distillation Technique for the Isolation of Cannabis sativa L.
Essential Oil and Gas Chromatography Analyses for the Comprehensive Characterization of
Terpenes and Terpenoids, Including Their Enantio-Distribution.
Molecules 2021:26, 1588.
49. Ivan Aloisi, Barbara Giocastro, Antonio Ferracane, Tania M.G. Salerno, **Mariosimone Zoccali**,
Peter Q. Tranchida, Luigi Mondello.
Preliminary observations on the use of a novel low duty cycle flow modulator for
comprehensive two-dimensional gas chromatography.
J. Chromatogr. A, 1643, 462076 (2021).
50. Antonio Ferracane, **Mariosimone Zoccali**, Tania Maria Grazia Salerno, Peter Q. Tranchida, Luigi
Mondello
Determination of multi-pesticide residues in vegetable products using a “reduced-scale”
Quechers method and flow-modulated comprehensive two-dimensional gas chromatography-
triple quadrupole mass spectrometry.
J. Chromatogr. A, 1645 (2021) 462126.
51. **Mariosimone Zoccali**, Tania Maria Grazia Salerno, Peter Q. Tranchida, Luigi Mondello.
Use Of A Low-Cost, Lab-Made Y-Interface For Liquid-Gas Chromatography Coupling For The
Analysis Of Mineral Oils In Food Samples.
J. Chromatogr. A, 1648 (2021) 462191.
52. Amandine Dispas, Adrian Clarke, Alexandre Grand-Guillaume Perrenoud, Luca Gioacchino
Losacco, Jean-Luc Veuthey, Quentin Gros, Jérémy Molineau, Angéline Noireau, Caroline West,

Fabio Salafia, **Mariosimone Zoccali**, Luigi Mondello, Amber Guillen, Jenny Wang, Kelly Zhang, Philipp Jochems, Gesa Schad, Kosuke Nakajima, Shinnosuke Horie, Jan Joseph, Maria Kristina Parr, Pierre Billefont, Antoni Severino, Sonja Schneider, Edgar Naegele, Daniel Kutscher, Rick Wikfors, Regina Black, Lee Ingvaldson, Jimmy Oliveira Da Silva, Raffael Bennett, Erik L. Regalado, Thi Phuong Thuy Hoang, David Touboul, Yana Nikolova, Mariana Kamenova-Nacheva, Vladimir Dimitrov, Blair K. Berger, Kevin A. Schug, Solène Kerviel-Guillon, Fabien Mauge, Masatomo Takahashi, Yoshihiro Izumi, Takeshi Bamba, Florent Rouvière, Sabine Heinisch, Davy Guillarme, Philippe Hubert.

Interlaboratory study of a supercritical fluid chromatography method for the determination of pharmaceutical impurities: Evaluation of multi-systems reproducibility.

J. Pharmaceut. Biomed, 203 (2021) 114206.

53. Santina Santisi, **Mariosimone Zoccali**, Valentina Catania, Paola Quatrini, Luigi Mondello, Maria Genovese, Simone Cappello.

Biodegradation Potential of Oil-degrading Bacteria Related to the Genus *Thalassospira* Isolated from Polluted Coastal Area in Mediterranean Sea.

SOIL AND SEDIMENT CONTAMINATION 31 2022 316-332.

54. Alessia Arena, **Mariosimone Zoccali**, Alessandra Trozzi, Peter Q. Tranchida, Luigi Mondello.

Occurrence of Mineral Oil Hydrocarbons in Omega-3 Fatty Acid Dietary Supplements.

Foods 10, 2424, 2021.

55. **Mariosimone Zoccali**, Marina Russo, Maria Rita Testa Camillo, Fabio Salafia, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.

On-line coupling of supercritical fluid extraction with enantioselective supercritical fluid chromatography-triple quadrupole mass spectrometry for the determination of chiral pesticides in hemp seeds: A proof-of-principle study.

Food Chemistry 373 (2022) 131418.

56. Paige E. Sudol, Micaela Galletta, Peter Q. Tranchida, **Mariosimone Zoccali**, Luigi Mondello, Robert E. Synovec.

Untargeted profiling and differentiation of geographical variants of wine samples using headspace solid-phase microextraction flow-modulated comprehensive two-dimensional gas chromatography with the support of tile-based Fisher ratio analysis.

J. Chromatogr. A 1662 (2022) 462735.

57. Micaela Galletta, **Mariosimone Zoccali**, Nick Jones, Luigi Mondello, Peter Q. Tranchida.

Flow-modulated comprehensive two-dimensional gas chromatography combined with time-of-flight mass spectrometry: use of hydrogen as a more sustainable alternative to helium.

Anal. Bioanal. Chem. 2022.

58. Adriana Arigò, Marina Russo, Maria Rita Testa Camillo, Paola Dugo, Luigi Mondello **Mariosimone Zoccali**.

Supercritical fluid chromatography-tandem mass spectrometry of oxygen heterocyclic compounds in Citrus essential oils.

Anal. Bioanal. Chem. 2022.

BOOK CHAPTERS

1. Flavio A. Franchina, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.

Potential of Comprehensive Two-Dimensional Gas Chromatography for the Analysis of Lipids. Encyclopedia of Lipidomics. Springer, September 2016. **Editors:** Markus R. Wenk.

2. Daniele Giuffrida, **Mariosimone Zoccali**, Luigi Mondello. Carotenoid and Apocarotenoid Analysis by SFE-SFC-QqQ/MS. Plant and Food Carotenoids. Springer Nature 2020. Editors: **Concepción**, Manuel Rodríguez, **Welsch**, Ralf (Eds.).
3. Peter Q. Tranchida, **Mariosimone Zoccali**, Luigi Mondello.
High-speed GC-MS: basic theory, practical aspects, and applications.
Hyphenations of Capillary Chromatography with Mass Spectrometry. Copyright © 2020 Elsevier Inc. All rights reserved.
4. Adriana Arigò, **Mariosimone Zoccali**, Danilo Sciarrone, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.
Analysis of Essential Oils.
Handbook of Essential Oils III Edition. Springer.
5. **Mariosimone Zoccali**, Francesco Cacciola, Katia Arena, Paola Dugo, Luigi Mondello.
Comprehensive Two-dimensional Chromatography: An Insight into the Analysis of Food and Food Products.
Encyclopedia of Analytical Chemistry: Applications, Theory and Instrumentation. Wiley.

CONFERENCE PROCEEDINGS

1. Joint Congress 2011 – 35th International Symposium on Capillary Chromatography, 26th International Symposium on Microscale Bioseparations, 8th GCxGC symposium, May 1-5, San Diego, California (USA).
P.Q. Tranchida, **M. Zoccali**, G. Purcaro, S. Moret, L. Conte, P. Dugo, L. Mondello.
“A rapid and sensitive LC/GC (LCxGC) method for the determination of hydrocarbon contamination in vegetable oils”
Oral communication.
2. Joint Congress 2011 – 35th International Symposium on Capillary Chromatography, 26th International Symposium on Microscale Bioseparations, 8th GCxGC symposium, May 1-5, San Diego, California (USA).
G. Purcaro, P.Q. Tranchida, **M. Zoccali**, S. Moret, L. Conte, P. Dugo, L. Mondello.
“A rapid screening method for the detection of low levels of mineral oil in vegetable oils using comprehensive 2D GC”
Oral communication.
3. Incontri di Scienza delle Separazioni – Il contributo della Scienza delle Separazioni alle problematiche ambientali, Torino, 4-5 Maggio 2011.
Mariosimone Zoccali, Danilo Sciarrone, Peter Quinto Tranchida, Luigi Mondello.
“Analisi di diesel mediante un approccio “off-line” LC-GC×GC in combinazione con uno spettrometro di massa ad analizzatore quadrupolare a rapida scansione”
Oral communication.
4. 5th International Symposium on Recent Advances in Food Analysis (RAFA), November 1-4, 2011, Prague, Czech republic.
Peter Tranchida, **Mariosimone Zoccali**, Giorgia Purcaro, Sabrina Moret, Lanfranco Conte, Paola Dugo, Luigi Mondello.
“A rapid and sensitive multidimensional liquid-gas chromatography (LC-GC) method for the determination of hydrocarbon contamination in foods”
Oral communication.
5. HTC 12 Bruges, February 1st – 3rd 2012 Twelfth International Symposium on Hyphenated Techniques in Chromatography and Hyphenated Chromatography Analysers.

Peter Tranchida, **Mariosimone Zoccali**, Giorgia Purcaro, Lanfranco Conte, Luigi Mondello.
“Multidimensional liquid-gas (LC-GC) chromatography for the rapid determination of saturated Hydrocarbon contamination in food.”
Oral communication.

6. Joint Congress 2012 – 36th International Symposium on Capillary Chromatography, 9th GCxGC symposium, May 27 - June 1, Riva del Garda, Italy.
Mariosimone Zoccali, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.
“A measurement of fundamental chromatography parameters in conventional and split-flow comprehensive two-dimensional gas chromatography-mass spectrometry: a comparative study”
Poster communication.
7. Joint Congress 2012 – 36th International Symposium on Capillary Chromatography, 9th GCxGC symposium, May 27 - June 1, Riva del Garda, Italy.
Mariosimone Zoccali, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.
“Determination of saturated-hydrocarbon contamination in baby foods by using on-line liquid-gas chromatography and off-line liquid-comprehensive gas chromatography combined with mass spectrometry”
Poster communication.
8. “ChimAlSi_2012” IX^o Italian Congress of Food Chemistry, Ischia, Italy, June 03-07, 2012.
Peter Q. Tranchida, **Mariosimone Zoccali**, Paola Dugo, Giovanni Dugo, Luigi Mondello.
“Multidimensional liquid-gas (LC-GC) chromatography for the rapid determination of saturated hydrocarbon contamination in baby food”
Poster communication.
9. ExTech 2012 – 14th International Symposium on Advances in Extraction Technologies, Messina, Italy, September 24-26.
Mariosimone Zoccali, Peter Q. Tranchida, Giorgia Purcaro, Lanfranco Conte, Paola Dugo, Luigi Mondello.
“Determination of mineral oil saturated-hydrocarbon contamination in baby foods by using on-line LC-GC and off-line LC-GC×GC combined with mass spectrometry”
Poster communication.
10. ExTech 2012 – 14th International Symposium on Advances in Extraction Technologies, Messina, Italy, September 24-26.
Flavio A. Franchinca, **Mariosimone Zoccali**, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.
“SPME-(Fast) GC combined with high-speed triple quadrupole mass spectrometry for the unknown and target analysis of pesticides in tea samples”
Poster communication.
11. ExTech 2012 – 14th International Symposium on Advances in Extraction Technologies, Messina, Italy, September 24-26.
Peter Q. Tranchida, **Mariosimone Zoccali**, Flavio A. Franchinca, Paola Dugo, Luigi Mondello.
“Enhanced selectivity and sensitivity of SPME-fast GC in combination with a novel high-speed triple-quad mass spectrometer in food analysis”
Oral communication.
12. 37th International Symposium on Capillary Chromatography, and 10th GC×GC Symposium, Palm Springs, USA, May 12-16, 2013.
Flavio Franchinca, **Mariosimone Zoccali**, Peter Tranchida, Luigi Mondello.

“High sensitivity flow-modulated two-dimensional gas chromatography-mass spectrometry”.
Poster communication.

13. 37th International Symposium on Capillary Chromatography, and 10th GC×GC Symposium, Palm Springs, USA, May 12-16, 2013.
Mariosimone Zoccali, Flavio Franchina, Simona Salivo, Sebastiano Pantò, Peter Tranchida, Luigi Mondello.
“SPE GC-HR ToF MS analysis of pesticides in olive oil: comparison with GC-MSMS”.
Poster communication.
14. 37th International Symposium on Capillary Chromatography, and 10th GC×GC Symposium, Palm Springs, USA, May 12-16, 2013.
Danilo Sciarrone, **Mariosimone Zoccali**, Flavio Franchina, Peter Quinto Tranchida, Luigi Mondello.
“Combining liquid chromatography and comprehensive two-dimensional gas chromatography-mass spectrometry: a powerful approach for the determination of mineral oil food contamination”.
Poster communication.
15. XVII EuroAnalysis, Warszawa Poland, 25-29 August 2013.
Danilo Sciarrone, Flavio Franchina, **Mariosimone Zoccali**, Peter Tranchida, Paola Dugo, Luigi Mondello. “Fast SPME GC coupled with high-speed triple quadrupole mass spectrometry for the untargeted and targeted analysis of tea samples”.
Poster communication.
16. XVII EuroAnalysis, Warszawa Poland, 25-29 August 2013.
Danilo Sciarrone, **Mariosimone Zoccali**, Ivana Bonaccorsi, Peter Tranchida, Paola Dugo, Giovanni Dugo, Luigi Mondello. “LC coupled to comprehensive GC×GC/MS: A powerful approach for highly-detailed essential oil analysis”.
Poster communication.
17. 44th International Symposium on Essential Oils, Budapest Hungary 8-12 September 2013.
“Fast Gas Chromatography Combined With a High-Speed Triple Quadrupole Mass Spectrometer for the Analysis of Unknown and Target Citrus Essential Oil Volatiles”
M. Zoccali, F. Franchina, D. Sciarrone, I. Bonaccorsi, P.Q. Tranchida, P. Dugo, G. Dugo, L. Mondello.
Poster communication.
18. 44th International Symposium on Essential Oils, Budapest Hungary, 8-12 September 2013.
“A new powerful approach for highly-detailed essential oil analysis: the off-line combination of high performance liquid chromatography and comprehensive two-dimensional gas chromatography-mass spectrometry”
M. Zoccali, D. Sciarrone, I. Bonaccorsi, P.Q. Tranchida, P. Dugo, G. Dugo, L. Mondello.
Poster communication.
19. 19th International Symposium on Separation Sciences, Poreč Croatia, 25-28 September 2013.
“High sensitivity flow-modulated comprehensive two-dimensional gas chromatography-mass spectrometry”
P.Q. Tranchida, F.A. Franchina, **M. Zoccali**, P. Dugo, L. Mondello.
Oral communication.

20. 19th International Symposium on Separation Sciences, Poreč Croatia, 25-28 September 2013.
“Fast SPME GC coupled with high-speed triple quadrupole mass spectrometry for the untargeted and targeted analysis of tea samples”
F.A. Franchina, **M. Zoccali**, P.Q. Tranchida, R. Costa, P. Dugo, L. Mondello.
Poster communication.
21. 6th International Symposium on RECENT ADVANCES IN FOOD ANALYSIS, Prague, Czech Republic, November 5–8, 2013.
“Potential and advantages of using a high performance liquid chromatography pre-separation step, prior to comprehensive two-dimensional gas chromatography–mass spectrometry essential oil analysis”
Mariosimone Zoccali, Danilo Sciarrone, Peter Q. Tranchida, Flavio A. Franchina, Paola Dugo, Luigi Mondello.
Oral communication.
22. 6th International Symposium on RECENT ADVANCES IN FOOD ANALYSIS, Prague, Czech Republic, November 5–8, 2013.
“Fast gc combined with a high-speed triple quadrupole mass spectrometer for the simultaneous analysis of unknown and target citrus essential oil analytes”
Mariosimone Zoccali, Flavio Franchina, Peter Tranchida, Ana Gabriela Buglia, Paola Dugo, Luigi Mondello.
Poster communication.
23. 6th International Symposium on RECENT ADVANCES IN FOOD ANALYSIS, Prague, Czech Republic, November 5–8, 2013.
“Fast spme gc coupled with high-speed triple quadrupole mass spectrometry for the simultaneous analysis of untargeted and targeted tea volatiles”
Mariosimone Zoccali, Peter Q. Tranchida, Sebastiano Pantò, Carla Ragonese, Paola Dugo, Luigi Mondello.
Poster communication.
24. Incontri di Scienza delle Separazioni, Messina, Italia, 28-29 novembre 2013.
“Benefici dell’approccio “off-line” LC-GC×GC in combinazione con uno spettrometro di massa per lo studio di oli essenziali di citrus”
Mariosimone Zoccali, Peter Q. Tranchida, Giovanni Dugo, Luigi Mondello.
Comunicazione poster
25. 13th International Symposium on Hyphenated Techniques in Chromatography, Bruges, Belgium, January 28-31, 2014.
“Benefits of using High-Performance Liquid Chromatography pre/separation step, prior to comprehensive two/dimensional gas chromatography-mass spectrometry essential oil analysis”
Flavio Antonio Franchina, Peter Quinto Tranchida, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
Poster communication.
26. 13th International Symposium on Hyphenated Techniques in Chromatography, Bruges, Belgium, January 28-31, 2014.
“A new analytical perspective in flow-modulated comprehensive two-dimensional gas chromatography”
Peter Tranchida, Flavio Franchina, Mariosimone Zoccali, Paola Dugo, Luigi Mondello.
Oral communication.

27. 13th International Symposium on Hyphenated Techniques in Chromatography, Bruges, Belgium, January 28-31, 2014.
 “High sensitivity flow-modulated two-dimensional gas chromatography-mass spectrometry”
 Flavio Antonio Franchina, Peter Quinto Tranchida, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
 Poster communication.
28. 13th International Symposium on Hyphenated Techniques in Chromatography, Bruges, Belgium, January 28-31, 2014.
 “Fast SPME-GC coupled with triple quadrupole mass spectrometry for the simultaneous untargeted and targeted analysis of foods”
 Flavio Antonio Franchina, Peter Quinto Tranchida, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
 Poster communication.
29. 38th International Symposium on Capillary Chromatography, 11th GCxGC symposium, May 18-23, Riva del Garda, Italy.
 “On-line liquid chromatography-comprehensive 2D gas chromatography triple quad mass spectrometry: a powerful and flexible 4D separation-science tool”
Mariosimone Zoccali, Flavio A. Franchina, Maria E. Machado, Claudia Zini, Elina B. Caramao, Peter Q. Tranchida, Luigi Mondello.
 Oral communication
30. 38th International Symposium on Capillary Chromatography, 11th GCxGC symposium, May 18-23, Riva del Garda, Italy.
 “The off-line combination of high performance liquid chromatography and comprehensive two-dimensional gas chromatography-mass spectrometry: a new powerful approach for highly-detailed essential oil analysis”
Mariosimone Zoccali, Peter Q. Tranchida, Paola Dugo, Giovanni Dugo, Luigi Mondello.
 Poster communication.
31. 38th International Symposium on Capillary Chromatography, 11th GCxGC symposium, May 18-23, Riva del Garda, Italy.
 “The on-line combination of liquid chromatography-large volume injection-comprehensive two dimensional gas chromatography triple quad mass spectrometry: a powerful four-dimensional separation-science tool”
Mariosimone Zoccali, Peter Q. Tranchida, Paola Dugo, Luigi Mondello
 Poster communication.
32. 30th International Symposium on Chromatography, September 14-18, Salzburg, Austria.
 “A powerful four-dimensional separation-science tool: on-line liquid chromatography-comprehensive two dimensional gas chromatography-triple quad mass spectrometry”
Mariosimone Zoccali, Flavio A. Franchina, Maria E. Machado, Claudia Zini, Elina B. Caramao, Peter Q. Tranchida, Luigi Mondello
 Oral communication
33. The 18th Annual Meeting of the Israel Analytical Chemistry Society, January 14-15, 2015, Tel Aviv, Israel.
 “A powerful four-dimensional separation-science tool: on-line liquid chromatography-comprehensive two dimensional gas chromatography-triple quad mass spectrometry”
 Peter Tranchida, **Mariosimone Zoccali**, Flavio Franchina, Luigi Mondello
 Poster communication.
34. Emerging Separations Technologies, March 26, 2015, London, UK.
 “Comprehensive 2D GC combined with novel MS instrumentation: powerful unified tools for the analysis of complex samples”
 Luigi Mondello, Peter Q. Tranchida, Flavio A. Franchina, **Mariosimone Zoccali**.
 Oral communication.

35. The 4th analytica Vietnam Conference 2015, April 15-16, 2015, Ho Chi Minh City, Vietnam.
 “A powerful five-dimensional separation-science tool: On-line combination of liquid chromatography-large volume injection-comprehensive two-dimensional gas chromatography-triple quad mass spectrometry”
M. Zoccali, P.Q. Tranchida, P. Dugo, D. Sciarrone, G. Purcaro, L. Mondello.
 Poster communication.
36. 106th AOCS Annual Meeting and Industry Showcases, May 3-6, 2015, Rosen Shingle Creek, Orlando, Florida, USA.
 “Improvement in MOAH Quantification in Edible Oils: Retention of Olefins by Using a Novel Liquid-Liquid Gas Chromatography (LC-LC-GC) Method”
M. Zoccali, L. Barp, G. Purcaro, D. Sciarrone, P.Q. Tranchida, L. Mondello.
 Poster communication.
37. 39th International Symposium on Capillary Chromatography, 12th GCxGC symposium, May 16th – 21th, 2015, Fort Worth, Texas USA
 “On-line combination of liquid chromatography-large volume injection-comprehensive two-dimensional gas chromatography triple quad mass spectrometry: a powerful 5-D separation-science tool”
Mariosimone Zoccali, Giorgia Purcaro, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.
 Oral communication.
38. 39th International Symposium on Capillary Chromatography, 12th GCxGC symposium, May 16th – 21th, 2015, Fort Worth, Texas USA
 “GC×GC: a powerful tool for a comprehensive evaluation of food quality, authenticity, and safety”
 Giorgia Purcaro, Laura Barp, **Mariosimone Zoccali**, Flavio A. Franchina, Peter Q. Tranchida, Sabrina Moret, Lanfranco S. Conte, Luigi Mondello.
 Oral communication.
39. 39th International Symposium on Capillary Chromatography, 12th GCxGC symposium, May 16th – 21th, 2015, Fort Worth, Texas USA
 “Direct immersion solid-phase microextraction followed by fast gas chromatography coupled with triple quadrupole mass spectrometry for the analysis of phthalate esters in vegetable oils”
 Laura Barp, Flavio A. Franchina, **Mariosimone Zoccali**, Danilo Sciarrone, Peter Q. Tranchida, Giorgia Purcaro, Luigi Mondello.
 Poster communication.
40. 39th International Symposium on Capillary Chromatography, 12th GC×GC symposium, May 16th – 21th, 2015, Fort Worth, Texas USA
 “On-line liquid chromatography for efficient removal of olefins prior to the gas chromatography determination of mineral oil contamination in vegetable oils”
Mariosimone Zoccali, Laura Barp, Giorgia Purcaro, Danilo Sciarrone, Peter Q. Tranchida, Luigi Mondello.
 Poster communication.
41. 18th edition of EuroAnalysis. The European Conference on Analytical Chemistry, September 6th – 10th, 2015 Bordeaux, France
 “MINERAL OIL DETERMINATION IN VEGETABLE OILS: AN INNOVATIVE ON-LINE LIQUID-GAS CHROMATOGRAPHY METHOD FOR EFFICIENT REMOVAL OF OLEFINS”
 Giorgia Purcaro, Laura Barp, **Mariosimone Zoccali**, Danilo Sciarrone, Peter Q. Tranchida, Luigi Mondello.
 Poster communication.
42. 14th International Symposium on Hyphenated Techniques in Chromatography and Separation Technology, January 27th – 29th, 2016 Ghent, Belgium.

“EFFICIENT ON-LINE LIQUID CHROMATOGRAPHY REMOVAL OF OLEFIN INTERFERENCES PRIOR TO THE GAS CHROMATOGRAPHY DETERMINATION OF MINERAL OIL CONTAMINATION IN VEGETABLE OILS”

Mariosimone Zoccali, Laura Barp, Marco Beccaria, Danilo Sciarrone, Giorgia Purcaro, Luigi Mondello.

Poster communication.

43. 11th European Pesticide Residue Workshop, May 24th – 27th, 2016 Limassol, Cyprus.

“MINIATURIZED QUECHERS METHODOLOGIES COUPLED TO FAST GAS CHROMATOGRAPHY-TRIPLE QUADRUPOLE MASS SPECTROMETRY FOR THE DETERMINATION OF PESTICIDES IN DIFFERENT VEGETABLES”

Mariosimone Zoccali, Giorgia Purcaro, Antonino Schepis, Peter Quinto Tranchida, Francesco Cacciola, Luigi Mondello.

Poster communication.

44. 11th European Pesticide Residue Workshop, May 24th – 27th, 2016 Limassol, Cyprus.

“CHROMATOPLUS SPECTRA and PESTICIDE mass spectral database: a powerful coupling of a unique chromatographic software with integrated automated LRI algorithm function exploiting the PESTICIDE MS database”

Margita Utzca, **Mariosimone Zoccali**, Giorgia Purcaro, Francesco Cacciola, Luigi Mondello.

Poster communication.

45. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“Quantification of pesticides in food samples by means of miniaturized QuEChERS approach coupled to fast GC-QqQ MS”

Antonino Schepis, **Mariosimone Zoccali**, Giorgia Purcaro, Peter Q. Tranchida, Luigi Mondello

Poster Communication.

46. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“Phthalic acid esters determination in vegetable oils by using SPME followed by fast GC coupled with triple quadrupole MS”

Flavio A. Franchina, Laura Barp, **Mariosimone Zoccali**, Giorgia Purcaro, Danilo Sciarrone, Peter Q. Tranchida, Luigi Mondello

Poster Communication.

47. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“Flow-modulated comprehensive 2D gas chromatography combined with vacuum ultraviolet detector for the analysis of complex mixture”

Mariosimone Zoccali, Margita Utzas, Giorgia Purcaro, Peter Q. Tranchida, Kevin A.A. Schug, Luigi Mondello

Poster Communication.

48. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“On-line coupling of CO₂ supercritical fluid extraction chromatography coupled to triple quadrupole mass spectrometry”

Mariosimone Zoccali, Giorgia Purcaro, Masayuki Nishimura, Luigi Mondello

Poster Communication.

49. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“VUV spectra database of fatty acids derivatized coupled with linear retention index approach: reliable identification tool for complex samples”

Mariosimone Zoccali, Margita Utczas, Giorgia Purcaro, Luigi Mondello
Poster Communication.

50. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“Efficient removal of olefin interferences by on-line liquid-liquid chromatography prior to the gas chromatography determination of mineral oil contamination in vegetable oils”

Mariosimone Zoccali, Giorgia Purcaro, Laura Barp, Marco Beccaria, Danilo Sciarrone, Luigi Mondello

Poster Communication.

51. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“Comprehensive 2D gas chromatography combined with a triple-quadrupole mass spectrometer and a useful quali/quantitative tool”

Mariosimone Zoccali

Oral Communication.

52. 40th International Symposium on Capillary Chromatography, and 13th GC×GC Symposium, Riva del Garda, Italy, May 29-June 03, 2016.

“Development of novel hyphenated techniques for characterization of complex samples”

Mariosimone Zoccali

Oral Communication.

53. 44th International Symposium on High Performance Liquid Phase Separations and Related Techniques, San Francisco, CA, USA, June 19-24, 2016.

“Pesticides Determination by Means of a Green Unified Analytical Tool.”

Marina Russo, **Mariosimone Zoccali**, Giorgia Purcaro, Paola Dugo, Yasuhiro Funada, Takanari Hattori, Masayuki Nishimura, Luigi Mondello.

Poster Communication.

54. 18th International Symposium on Advances in Extraction Technologies and 22th International Symposium on Separation sciences, Torun, Poland, July 3-6, 2016.

“On-line extraction and determination by means CO₂ supercritical fluid and triple quadrupole mass spectrometry”

M. Zoccali, G. Purcaro, M. Utczas, M. Nishimura, L. Mondello

Poster Communication.

55. 31th International Symposium on Chromatography, Cork, Ireland, August 28th–Sept 1th, 2016.

“Improvement in the determination of mineral oil contamination in vegetable oils: efficient removal of olefin interferences by LC-LC-GC”

M. Zoccali, G. Purcaro, L. Barp, M. Beccaria, D. Sciarrone, L. Mondello.

Oral Communication.

56. 31th International Symposium on Chromatography, Cork, Ireland, August 28th–Sept 1th, 2016.

“MS Spectra Database Of Flavours And Fragrances Coupled With Linear Retention Index Approach: Reliable Identification Of Complex Essential Oil Samples”

M. Utczas, **M. Zoccali**, G. Micalizzi, G. Purcaro, L. Mondello.

Poster Communication.

57. 31th International Symposium on Chromatography, Cork, Ireland, August 28th–Sept 1th, 2016.
“A unified analytical tool for green extraction and determination of both targeted and untargeted analysis”
M. Zoccali, G. Purcaro, M. Nishimura, L. Mondello.
Poster Communication.
58. 130th AOAC Annual Meeting and Exposition, Dallas, Texas, USA. September 18th–21th, 2016.
“A unified analytical tool for green extraction and determination of both targeted and untargeted analysis”
Mariosimone Zoccali, L. Mondello.
Oral Communication.
59. 130th AOAC Annual Meeting and Exposition, Dallas, Texas, USA. September 18th–21th, 2016.
“On line liquid-liquid chromatography coupled to gas chromatography for the determination of mineral oil contamination in vegetable oils”
Mariosimone Zoccali, Giorgia Purcaro, Luigi Mondello.
Poster Communication.
60. Food Technology News “WATERS”, Messina, Italy. November 22th, 2016.
“Flow-Modulated comprehensive 2D gas chromatography combined with Atmospheric Pressure Gas Chromatography triple quad MS detector”
Mariosimone Zoccali, Luigi Mondello.
Oral Communication.
61. The 20th Annual Meeting of the Israel Analytical Chemistry Society, Tel Aviv, Israel. January 24-25, 2017.
“Comprehensive 2D Gas Chromatography Combined with Rapid-Scanning Triple Quadrupole MS: Powerful Tools for the Analysis of Complex Samples”
Mariosimone Zoccali, Luigi Mondello.
Oral Communication.
62. The 20th Annual Meeting of the Israel Analytical Chemistry Society, Tel Aviv, Israel. January 24-25, 2017.
“Pesticides Quantification in Food Samples by Means of Scale-Reduced QuEChERS Approach Coupled to Fast GC-QqQ MS”
Mariosimone Zoccali, Antonino Schepis, Luigi Mondello.
Poster Communication.
63. Smart Chem 2017, Catania. Italy. February 2-3, 2017.
“Gascromatografia multidimensionale “Comprehensive” con l’utilizzo di un modulatore a flusso accoppiata ad uno spettrometro di massa a triplo quadrupolo”
Mariosimone Zoccali, Mariarosa Maimone, Luigi Mondello.
Oral Communication.
64. Pittcon Conference & Expo 2017, Chicago IL. USA. March 5-9, 2017.
“On-line Extraction and Determination of Targeted Carotenoids from Habanero Red (Capsicum Chinese)”
Luigi Mondello, **Mariosimone Zoccali**, Daniele Giuffrida, Paola Dugo.
Oral Communication.
65. Pittcon Conference & Expo 2017, Chicago IL. USA. March 5-9, 2017.

“Proposal of a Linear Retention Index (LRI) System for Improving Identification Reliability of Triacylglycerol Profiles in Different Lipid Samples by Liquid Chromatography Methods”
Luigi Mondello, Francesca Rigano, **Mariosimone Zoccali**.
Poster Communication.

66. Pittcon Conference & Expo 2017, Chicago IL. USA. March 5-9, 2017.
“Improvement of Mineral Oil Saturated and Aromatic Hydrocarbons Determination in Edible Oil by Liquid-Liquid-Gas Chromatography with Dual Detection”
Luigi Mondello, Francesca Rigano, **Mariosimone Zoccali**.
Poster Communication.
67. 33rd International Symposium on Microscale Separations and Bioanalysis (MSB 2017)
Conference Center de Leeuwenhorst, The Netherlands, March 26-29, 2017.
Apocarotenoids determination in Habanero, by supercritical fluid chromatography-mass spectrometry.
Mariosimone Zoccali, Daniele Giuffrida, Francesca Rigano, Paola Dugo, and Luigi Mondello
Poster Communication.
68. Analytica Vietnam 2017, I.C.E. International Center for Exhibition, Hanoi, Vietnam, March 29-31, 2017.
Flow modulated comprehensive 2D gas chromatography combined with a triple-quadrupole mass spectrometer and a useful qualitative/quantitative tool.
Mariosimone Zoccali, Paola Dugo, Luigi Mondello
Poster Communication.
69. The 41th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 14-19, 2017
Mariosimone Zoccali, Paola Dugo, Luigi Mondello
On-line liquid-liquid-gas chromatography with dual detection for the determination of mineral oil saturated and aromatic hydrocarbons in vegetable oil
Oral Communication.
70. The 41th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 14-19, 2017
Mariasosa Maimone, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello
Determination of biomarkers in petrochemical samples by using FM-GC×GC-QqQ MS
Oral Communication.
71. The 41th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 14-19, 2017
Mariosimone Zoccali, Daniele Giuffrida, Paola Dugo, Luigi Mondello
Fast On-line extraction and determination of targeted carotenoids from food samples
Poster Communication.
72. The 41th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 14-19, 2017
Francesca Rigano, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello
Supercritical fluid chromatography coupled to electron ionization mass spectrometry for a reliable identification of semi-volatile compounds
Poster Communication.

73. 65th ASMS Conference on Mass Spectrometry and Allied Topic, June 4-8, 2017, Indianapolis, Indiana.
Mariosimone Zoccali, Paola Dugo, Luigi Mondello
On-line liquid-liquid-gas chromatography-FID/QqQ MS for mineral oil saturated and aromatic hydrocarbons determination in vegetable oil
Poster Communication.
74. HPLC 2017 Prague June 18-22, 2017, Czech Republic.
M. Zoccali, D. Giuffrida, P. Dugo, L. Mondello
Online supercritical fluid extraction-supercritical fluid chromatography mass spectrometry for carotenoids determination in red habanero peppers.
Oral Communication.
75. HPLC 2017 Prague June 18-22, 2017, Czech Republic.
M. Zoccali, D. Giuffrida, P. Dugo, L. Mondello
Online supercritical fluid extraction-supercritical fluid chromatography mass spectrometry for carotenoids determination in red habanero peppers.
Poster Communication.
76. 19th International Symposium on Advances in Extraction Technologies. Santiago de Compostela, Spain, June 27th-30th 2017.
Mariosimone Zoccali, Paola Dugo, Luigi Mondello
Efficient removal of olefin and triglycerides by online liquid-liquid chromatography prior to the gas chromatography determination of mineral oil contamination in vegetable oils.
Oral Communication.
77. 19th International Symposium on Advances in Extraction Technologies. Santiago de Compostela, Spain, June 27th-30th 2017.
Mariosimone Zoccali, Adriana Arigò, Daniele Giuffrida, Paola Dugo, Luigi Mondello
Online extraction and determination by subcritical fluid extraction- supercritical fluid chromatography-mass spectrometry of bioactive compounds from food samples.
Oral Communication.
78. 18th International Symposium on Carotenoids, Lucerne, Switzerland, July 9th-14th 2017.
D. Giuffrida, **Mariosimone Zoccali**, A. Arigò, P. Dugo, L. Mondello
On-line SFE-SFC-MS of carotenoids and SFC-QqQ-MS of apocarotenoids from red Habanero (*Capsicum chinense* Jacq.) chilli pepper.
Oral Communication.
79. ITP 2017, 24th International Symposium on Electro- and Liquid Phase Separation Techniques, Sopot/Gdańsk, Poland September 10th-13th 2017.
Luigi Mondello, **Mariosimone Zoccali**.
A unified analytical tool for green extraction and determination of bioactive compounds from food samples.
Oral Communication.
80. RAFA, Recent Advances in Food Analysis, Prague, Czech Republic, November 7-10, 2017
Peter Quinto Tranchida, **Mariosimone Zoccali**, Luigi Mondello.
THREE-, FOUR-, AND FIVE-DIMENSIONAL LIQUID CHROMATOGRAPHY-GAS CHROMATOGRAPHY-MASS SPECTROMETRY PROCESSES IN FOOD ANALYSIS.
Oral Communication.

81. RAFA, Recent Advances in Food Analysis, Prague, Czech Republic, November 7-10, 2017
Mariosimone Zoccali, Adriana Arigò, Marina Russo, Francesca Rigano, Paola Dugo, Luigi Mondello.
Characterization of the Oxygen Heterocyclic Compounds (Coumarins, Psoralens and Polymethoxylated Flavones) in Food Products.
Oral Communication.
82. RAFA, Recent Advances in Food Analysis, Prague, Czech Republic, November 7-10, 2017
Mariosimone Zoccali, Adriana Arigò, Daniele Giuffrida, Paola Dugo, Luigi Mondello.
Online Extracion and Determination of Bioactive Compounds from Food Samples by Means of Supercritical Fluid Extraction-Supercritical Fluid Chromatography-Mass Spectrometry.
Oral Communication.
83. HTC-15, Cardiff, UK, January 24-26, 2018
Mariosimone Zoccali, Daniele Giuffrida, Adriana Arigò, Paola Dugo, Luigi Mondello.
Online extraction and determination of carotenoids from food samples by means of supercritical fluid extraction-supercritical fluid chromatography-mass Spectrometry.
Oral Communication.
84. HTC-15, Cardiff, UK, January 24-26, 2018
Mariosimone Zoccali.
Solutions for allergens analysis in fragrances.
Oral Communication.
85. Kuwait Conference of Chemistry KCC 2018, Kuwait, March 12-14, 2018
Peter Quinto Tranchida, **Mariosimone Zoccali**, Luigi Mondello.
An Innovational 5-dimensional system (LC-GC×GC-MS/MS) for the analysis of petroleum derivatives.
Oral Communication.
86. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18
Barbara Giocastro, **Mariosimone Zoccali**, Peter Quinto Tranchida, Luigi Mondello.
Evaluation and use of a novel consumable free thermal modulator and a bench-top time-of-flight mass spectrometer in comprehensive 2D GC applications.
Poster Communication.
87. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18
Mariosimone Zoccali, Luigi Mondello.
On-line coupled liquid chromatography – comprehensive two dimensional gas chromatography with dual detection for the analysis of mineral oil and synthetic hydrocarbons in cosmetic lip products.
Oral Communication.
88. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18
Ivan Aloisi, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Flow-Modulation comprehensive 2D GC combined with triple-quadrupole mass spectrometry: A very powerful and flexible analytical tool.
Oral Communication.

89. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18.
Characterization of carotenoids and apocarotenoids in human blood samples by means of online supercritical fluid extraction supercritical fluid chromatography tandem mass spectrometry.
Fabio Salafia, Daniele Giuffrida, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
Poster Communication.
90. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18.
Bioactive compounds in orange peel from a brazilian variety ('Pera').
Daniele Giuffrida, Daniella C. Murador, Fabio Salafia, **Mariosimone Zoccali**, Adriana Arigò, Vieridiana V. De Rosso, Paola Dugo, Luigi Mondello.
Poster Communication.
91. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18.
Supercritical fluid chromatography tandem mass spectrometry to characterize limonoid aglycones in citrus essential oils.
Adriana Arigò, **Mariosimone Zoccali**, Fabio Salafia, Paola Dugo, Luigi Mondello.
Poster Communication.
92. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18.
Extraction and characterization of carotenoids and apo-carotenoids from microalgae by means of supercritical fluid extraction supercritical fluid chromatography tandem mass spectrometry.
Mariosimone Zoccali, Fabio Salafia, Daniele Giuffrida, Carmen Socaciu, Paola Dugo, Luigi Mondello.
Poster Communication.
93. The 42nd International Symposium on Capillary Chromatography and The 15nd GC×GC Symposium, Riva del Garda, Italy, May 13-18.
Comprehensive two-dimensional liquid chromatography coupled to tandem mass spectrometry for quali-quantitative analysis of the polyphenolic fraction of extra virgin olive oils.
Katia Arena, Francesco Cacciola, Fabio Salafia, Francesca Rigano, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
Poster Communication.
94. 11th International Symposium on Chromatography of Natural Products, Lublin, Poland, June 4-7, 2018.
Online subcritical solvent extraction and chromatography for carotenoid fingerprinting in foodstuffs using mass spectrometry detection.
Tranchida Peter Tranchida, **Mariosimone Zoccali**, Luigi Mondello.
Oral Communication.
95. 47th International Symposium on High Performance Liquid Phase Separations and Related Techniques, Washington, USA, July 29- August 2, 2018.
Characterization of Carotenoids and Apocarotenoids in Human Blood Samples by Means of Online Supercritical Fluid Extraction Supercritical Fluid Chromatography Tandem Mass Spectrometry.
Mariosimone Zoccali, Daniele Giuffrida, Fabio Salafia, Paola Dugo, Luigi Mondello.
Oral Communication.

96. 47th International Symposium on High Performance Liquid Phase Separations and Related Techniques, Washington, USA, July 29- August 2, 2018.
Liquid Chromatography as Sample Preparation Technique On-line coupled to Comprehensive Two Dimensional Gas Chromatography with dual Detection for the Analysis of Mineral oil and Synthetic Hydrocarbons in Cosmetic Lip Products.
Mariosimone Zoccali, Luigi Mondello.
Poster Communication.
97. 132th AOAC Annual Meeting and Exposition, Toronto, Canada. August 26 –29, 2018.
“Effects of Supercritical Fluid Chromatography Conditions on Separation of Chiral Pesticides”
Adriana Arigò, **Mariosimone Zoccali**, L. Mondello.
Poster Communication.
98. XXVII Congresso Divisione di Chimica Analitica, Bologna, Italia. September 16 –20, 2018.
“Detailed profiling of extra-virgin olive oils by using comprehensive two-dimensional gas chromatography with dual quadrupole mass spectrometry and flame ionization detection”
P.Q. Tranchida, I. Aloisi, B. Giocastro, **M. Zoccali**, P. Dugo, L. Mondello.
Poster Communication.
99. 2nd International Conference on FOOD BIOACTIVES & HEALTH, Lisbon, Portugal. September 26–28, 2018.
“Bioactive compounds in orange peel from a Brazilian variety (“Pera”)”
Giuffrida, D.; Murador, D.C.; Salafia, F; **Zoccali, M.**; Arigò, A.; de Rosso, V.V.; Dugo, P.; Mondello, L.
Oral Communication.
100. 32nd International Symposium on Chromatography, ISC 2018, Cannes-Mandelieu, France. September 23–27, 2018.
“Advantages of Comprehensive Two-Dimensional Liquid Chromatography on Separation and Matrix Effects in the polyphenol Profiling of Extra Virgin Olive Oils”
Adriana Arigò, Katia Arena, Francesco Cacciola, Fabio Salafia, Francesca Rigano, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
Poster Communication.
101. Incontri di Scienza delle Separazioni, Roma, Italia. November 8–9, 2018.
“Utilizzo di Tecniche Gascromatografiche Multidimensionali Comprehensive per la caratterizzazione della Biodegradazione Idrocarburica ad Opera di Popolazioni Microbiche Marine”
Mariosimone Zoccali, Peter Q. Tranchida, Simone Cappello, Luigi Mondello.
Oral Communication.
102. Incontri di Scienza delle Separazioni, Roma, Italia. November 8–9, 2018.
“Vantaggi della Cromatografia Liquida Bidimensionale Comprehensive sulla Separazione e l’Effetto Matrice nel Profilo Polifenolico degli Oli Extra Vergine di Oliva”
Adriana Arigò, Katia Arena, Francesco Cacciola, Fabio Salafia, Francesca Rigano, **Mariosimone Zoccali**, Paola Dugo, Luigi Mondello.
Poster Communication.
103. Incontri di Scienza delle Separazioni, Roma, Italia. November 8–9, 2018.
“Valutazione di un Nuovo Modulatore Termico Consumable-Free (Solid State Modulator) per la Gascromatografia Bidimensionale Comprehensive”
Barbara Giocastro, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.

Oral Communication.

104. Incontri di Scienza delle Separazioni, Roma, Italia. November 8–9, 2018.

“Determinazione di Carotenoidi e Apocarotenoidi nel Sangue Umano Mediante Estrazione e Cromatografia a Fluido Supercritico”

Fabio Salafia, **Mariosimone Zoccali**, Daniele Giuffrida, Paola Dugo, Luigi Mondello.

Oral Communication.

105. ISEAC-40 International Conference on Environmental & Food Monitoring, Santiago de Compostela, Spain. June 19-22, 2018.

“Fast online extraction and determination method for carotenoids screening in food samples by means of supercritical fluid extraction supercritical fluid chromatography-mass spectrometry”

Mariosimone Zoccali, Emanuela Trovato, Luigi Mondello.

Poster Communication.

106. The 43th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 12-17, 2019

Mariosimone Zoccali, Peter Q. Tranchida, Luigi Mondello

A lab-developed interface for LC-GC coupling based on the use of a modified programmed temperature vaporizing injector.

Oral Communication.

107. The 43th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 12-17, 2019

Peter Q. Tranchida, Ivan Aloisi, **Mariosimone Zoccali**, Barbara Giocastro, Tiago Schena, Luigi Mondello.

Generation of identical (or near-to-identical) flow- and cryogenic-modulator GC×GC-MS fingerprints: a side-by-side measurement of the modulation performances.

Oral Communication.

108. The 43th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 12-17, 2019

Barbara Giocastro, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.

Evaluation of a novel consumable-free thermal modulator: Gas flow optimization aspects.

Oral Communication.

109. The 43th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 12-17, 2019

Ivan Aloisi, Barbara Giocastro, **Mariosimone Zoccali**, Peter Q. Tranchida, Paola Dugo, Luigi Mondello.

Cryogenically-modulated comprehensive two-dimensional gas chromatography-high resolution time-of-flight mass spectrometry for the in-depth analysis of minor compounds in vegetable oils.

Poster Communication.

110. The 43th International Symposium on Capillary Chromatography (ISCC) & The 14th GC×GC Symposium, Fort Worth, TX, USA, May 12-17, 2019

Barbara Giocastro, Danilo Sciarrone, Ivan Aloisi, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.

Use of GC×GC-QMS for the analysis of potential biomarkers in biological lipid constituents.

Poster Communication.

111. 48th International Symposium on High-Performance Liquid Phase Separations and Related Techniques, Milan, Italy, June 16-20, 2019
Mariosimone Zoccali, Fabio Salafia, Daniele Giuffrida, Luigi Mondello Carbon dioxide-based extraction and separation techniques for the analysis of carotenoids and their derivatives.
Invited Oral Communication.
112. 48th International Symposium on High-Performance Liquid Phase Separations and Related Techniques, Milan, Italy, June 16-20, 2019
Fabio Salafia, **Mariosimone Zoccali**, Daniele Giuffrida, Paola Dugo, Luigi Mondello Carotenoids and apocarotenoids determination in Capsicum species by supercritical fluid extraction-supercritical fluid chromatography-triple quadrupole/mass spectrometry.
Oral Communication.
113. 48th International Symposium on High-Performance Liquid Phase Separations and Related Techniques, Milan, Italy, June 16-20, 2019
Domenica Mangraviti, Katia Arena, Francesco Cacciola, **Mariosimone Zoccali**, Francesca Rigano, Paola Dugo, Luigi Mondello
Determination of the polyphenolic fraction of *Pistacia vera* L. kernel extracts by comprehensive two-dimensional liquid chromatography coupled to mass spectrometry detection.
Poster Communication.
114. XVII COLACRO, Aracaju-SE, Brasil, July 14-19, 2019
Peter Q. Tranchida, Ivan Aloisi, **Mariosimone Zoccali**, Barbara Giocastro, Tiago Schena, Elina Bastos Caramão, Luigi Mondello.
Analysis of coconut-derived bio-oil by using flow- and cryogenic modulation comprehensive 2D gas chromatography-mass spectrometry.
Oral Communication.
115. 25th International Symposium on Separation Sciences, Lodz, Poland, September 15-18, 2019.
Peter Q. Tranchida, Ivan Aloisi, **Mariosimone Zoccali**, Barbara Giocastro, Luigi Mondello.
A side-by-side evaluation of the performances of cryogenic and pneumatic forms of comprehensive 2D GC modulation.
Oral Communication.
116. XXVIII Congress of the Analytical Chemistry Division, Bari, Italy, September 22-26, 2019.
Mariosimone Zoccali, Peter Q. Tranchida, Luigi Mondello.
On-line coupled liquid chromatography – comprehensive two dimensional gas chromatography with dual detection for the analysis of mineral oil in cosmetics.
Oral Communication (Keynote lecture).
117. XXVIII Congress of the Analytical Chemistry Division, Bari, Italy, September 22-26, 2019.
Barbara Giocastro, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Use of a novel consumable-free thermal modulator within the context of comprehensive two-dimensional gas chromatography: gas flow optimization aspects.
Poster Communication.
118. 16th International Symposium on Hyphenated Techniques in Chromatography and Separation technology, Ghent, Belgium, January 29-31, 2020.
Benedikt A. Weggler, L. M. Dubois, N. Gawlitta, T. Gröger, L. Mondello, J. Moncur, S. Reichenbach, P. Tranchida, Z. Zhao, R. Zimmermann, **M. Zoccali**, J-F. Focant.
Establishing a Unique Open-Source Benchmark Dataset.
Oral Communication.

119. 16th Annual Workshop on Emerging High-Resolution Mass Spectrometry and LC-MS/MS Applications in Environmental Analysis and Food Safety, Online, October 15-16, 2020. P.Q. Tranchida, I. Aloisi, **M. Zoccali**, P. Dugo, L. Mondello.
Analytical potential of comprehensive two-dimensional gas chromatography-high resolution time-of-flight mass spectrometry within the context of environmental and food analysis
Oral Communication.
120. 16th Annual Workshop on Emerging High-Resolution Mass Spectrometry and LC-MS/MS Applications in Environmental Analysis and Food Safety, Online, October 15-16, 2020. I. Aloisi, **M. Zoccali**, P. Dugo, P.Q. Tranchida, L. Mondello.
Cryogenically-modulated comprehensive two-dimensional gas chromatography-high resolution time-of-flight mass spectrometry: fingerprint of the unsaponifiable fraction of vegetable oils.
Oral Communication.
121. 16th Annual Workshop on Emerging High-Resolution Mass Spectrometry and LC-MS/MS Applications in Environmental Analysis and Food Safety, Online, October 15-16, 2020. I. Aloisi, **M. Zoccali**, P. Dugo, P.Q. Tranchida, L. Mondello.
Investigation of organic sulphur compounds in coal tar by using comprehensive two-dimensional gas chromatography-high resolution time-of-flight mass spectrometry.
Oral Communication.
122. 12 Multidimensional Chromatography Virtual Workshop, Online, February 1-3, 2021. **M. Zoccali**, P.Q. Tranchida, L. Mondello.
Fulfilling the EU Guidance on Mineral oil analysis using LC-GC based Analysis.
Oral Communication.
123. 12 Multidimensional Chromatography Virtual Workshop, Online, February 1-3, 2021. P.Q. Tranchida, I. Aloisi, A. Ferracane, B. Giocastro, **M. Zoccali**, L. Mondello.
Considerations on the use of split and splitless flow modulation devices in GC×GC-MS.
Oral Communication.
124. 1st European Sample Preparation e-conference, March 11-12, 2021. **M. Zoccali**, A. Arena, P.Q. Tranchida, L. Mondello.
Development of A Low-Cost, Lab-Made Y-Interface for LC-GC Coupling for On-line Analysis in a Fully Automatized Way of Mineral Oils in Food Samples.
Oral Communication.
125. 18th International GC×GC Symposium, Virtual Meeting, June 7-11, 2021. **M. Zoccali**, M. Galletta, P.E. Sudol, P.Q. Tranchida, L. Mondello, R.E. Synovec.
Untargeted Profiling and Differentiation of Geographical Variants of Wine Samples Using Headspace SPME-GC×GC-ToFMS Coupled with Tile-based Fisher Ratio Analysis.
Oral Communication.
126. 18th International GC×GC Symposium, Virtual Meeting, June 7-11, 2021. T.M.G. Salerno, C. Coppolino, **M. Zoccali**, L. Mondello.
GC×GC-sd-FTIR/MS for Reliable Identification in the Foodomics Field.
Oral Communication.
127. 18th International GC×GC Symposium, Virtual Meeting, June 7-11, 2021.

- P.Q. Tranchida, I. Aloisi, A. Ferracane, **M. Zoccali**, L. Mondello.
Options of 1D GC, Flow-Modulation Signal-Enhanced 1D GC and Flow-Modulation GC×GC in a Single Instrument: a Proof-of-Concept.
Oral Communication.
128. 18th International GC×GC Symposium, Virtual Meeting, June 7-11, 2021.
I. Aloisi, **M. Zoccali**, P.Q. Tranchida, L. Mondello.
Use of Comprehensive Two-Dimensional Gas Chromatography-High Resolution Time-of-Flight Mass Spectrometry for the Investigation of Organic Sulphur Compounds in Coal Tar.
Oral Communication.
129. 18th International GC×GC Symposium, Virtual Meeting, June 7-11, 2021.
B. Giocastro, **M. Zoccali**, P.Q. Tranchida, L. Mondello.
Evaluation of Different Internal Diameter Modulation Columns within the Context of Solid-State Modulation.
Oral Communication.
130. 18th International GC×GC Symposium, Virtual Meeting, June 7-11, 2021.
B.A. Weggler, L.M. Dubois, N. Gawlitta, T. Groger, J. Moncur, S. Reichenbach, P.Q. Tranchida, Z. Zhao, **M. Zoccali**, L. Mondello, J.F. Focant..
A Unique Data Analysis Framework and Open Source Benchmark Data Set for the Analysis of Comprehensive Two-Dimensional Gas Chromatography Software.
Oral Communication.
131. ExTech 21, Alicante Online Event, 30th June – 2nd July, 2021.
Mariosimone Zoccali, Marina Russo, Mariarita Testa Camillo, Luigi Mondello.
ON-LINE SFE-ENANTIOSELECTIVE-SFC-QQQ MS FOR THE DETERMINATION OF CHIRAL PESTICIDES IN HEMP SEEDS: A PROOF OF-PRINCIPLE STUDY.
Oral Communication.
132. Site Management Analytics Seminar, Merck Life Science on-line, August 23th 2021
Fulfilling the EU Guidance on Mineral oil analysis using LC-GC based analysis
Mariosimone Zoccali, Luigi Mondello.
Oral Communication.
133. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA-SCI 2021, on-line, 14-23 Settembre 2021
Mariosimone Zoccali, Peter Q. Tranchida, Luigi Mondello.
Is There a Real Need for Multidimensional Chromatography Strategies with the Current Availability of Powerful Mass Spectrometry Platforms?
Invited Keynote Lecture.
134. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA-SCI 2021, on-line, 14-23 Settembre 2021
Peter Q. Tranchida, Ivan Aloisi, Antonio Ferracane, **Mariosimone Zoccali**, Luigi Mondello.
Options of 1D GC, flow-modulation signal-enhanced 1D GC and flow-modulation comprehensive 2D GC in a single instrument: a proof-of-concept study.
Oral Communication.
135. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA-SCI 2021, on-line, 14-23 Settembre 2021

Alessia Arena, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Mineral oil investigation in omega-3 rich lipid supplements by using multidimensional liquid-gas chromatography.
Oral Communication.

136. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA-SCI 2021, on-line, 14-23 Settembre 2021
A. Ferracane, **M. Zoccali**, P.Q. Tranchida, L. Mondello.
Simultaneous determination of 88 multi-class pesticide residues in four vegetable matrices using reduced QuEChERS extraction and flow-modulated comprehensive two-dimensional gas chromatography-triple quadrupole mass spectrometry.
Oral Communication.
137. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA-SCI 2021, on-line, 14-23 Settembre 2021
Micaela Galletta, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello
Evaluation of use of hydrogen as carrier gas in flow-modulation comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry.
Oral Communication.
138. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA-SCI 2021, on-line, 14-23 Settembre 2021
Tania M. G. Salerno, Carmelo Coppolino, **Mariosimone Zoccali**, Paola Donato, Luigi Mondello.
The Coupling of Gas Chromatography - Mass Spectrometry with Infrared Spectroscopy for Reliable Identification of Unknowns in Complex Samples.
Oral Communication.
139. XXVII CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA- SCI 2021, on-line, 4-23 Settembre 2021
A. Ferracane, M. Galletta, G. Micalizzi, **M. Zoccali**, P.Q. Tranchida, L. Mondello.
Development of a reduced-scale fully-automated method to determine the fatty acid content in human blood by using a robotic station coupled with fast GC-MS.
Poster Communication.
140. Separation Science: The State Of The Art, on-line, 14-18 October 2021.
P.E. Sudol, M. Galletta, P.Q. Tranchida, **M. Zoccali**, L. Mondello, R.E. Synovec,
Untargeted profiling and differentiation of geographical variants of wine samples using HS-SPME-FM GC×GC TOF MS with the support of tile based fisher ratio analysis.
Invited Lecture.
141. 13th Multidimensional Chromatography Virtual Workshop, Online, January 31-February 2, 2022.
Micaela Galletta, Paige E. Sudol, Peter Q. Tranchida, **Mariosimone Zoccali**, Luigi Mondello, Robert E. Synovec.
CHEMICAL CHARACTERIZATION OF WINE SAMPLES BY MEANS OF HEADSPACE SPME FLOW-MODULATED GC×GC-TOFMS WITH THE SUPPORT OF TILE-BASED FISHER RATIO ANALYSIS.
Poster Communication.
142. 13th Multidimensional Chromatography Virtual Workshop, Online, January 31-February 2, 2022.

Mariosimone Zoccali, Alessia Arena, Peter Q. Tranchida, Luigi Mondello.
DIRECT ANALYSIS OF PHTHALATE ESTERS IN VEGETABLE OILS BY MEANS OF
CRYOGENIC-MODULATION GC×GC QQQ MS.
Oral Communication.

143. 13th Multidimensional Chromatography Virtual Workshop, Online, January 31-February 2, 2022.
Alessia Arena, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
ANALYSIS OF MINERAL OIL HYDROCARBONS CONTAMINATION IN OMEGA-3
LIPID SUPPLEMENTS BY MEANS OF LIQUID CHROMATOGRAPHY
HYPHENATED WITH GAS CHROMATOGRAPHY AND FLAME IONIZATION
DETECTOR.
Poster Communication.
144. 13th Multidimensional Chromatography Virtual Workshop, Online, January 31-February 2, 2022.
Antonio Ferracane, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
UNTARGETED ANALYSIS OF VOLATILE COMPOUNDS IN
HONEYBY USING HEADSPACE SOLIDPHASE
MICROEXTRACTIONCOUPLED WITH FLOW MODULATED COMPREHENSIVE
TWO-DIMENSIONAL GAS CHROMATOGRAPHY-MASS SPECTROMETR
Poster Communication.
145. 2nd European Sample Preparation e-Conference, 1st Green and Sustainable Analytical
Chemistry e-Conference, March 14-16, 2022.
Antonio Ferracane, **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Use of Headspace SPME-GC×GC-ToF MS with Hydrogen of Carrier Gas for the Chemical
Characterization of Food Volatilomes.
Poster Communication.
146. 2nd European Sample Preparation e-Conference, 1st Green and Sustainable Analytical
Chemistry e-Conference, March 14-16, 2022.
A. Arena, **M. Zoccali**, P.Q. Tranchida, L. Mondello.
Use of an Online LC-GC System for the Investigation of MOH Contamination in Omega-3
Fatty Acid Dietary Supplements.
Oral Communication.
147. 2nd European Sample Preparation e-Conference, 1st Green and Sustainable Analytical
Chemistry e-Conference, March 14-16, 2022.
M. Zoccali, A. Arena, P.Q. Tranchida, L. Mondello.
Green and Sustainable Method for the Analysis of Phthalate Esters in Vegetable Oils by
Means of GC×GC-Qqq MS.
Oral Communication.
148. 19th International GC×GC Symposium “Virtual”, May 29- June 2, 2022.
M. Zoccali, A. Arena, A. Ferracane, M. Galletta.
From Two- To Five-Dimensions: An Adventure Within The Context Of Comprehensive
Two-Dimensional Gas Chromatography.
Award Lecture.
149. 19th International GC×GC Symposium “Virtual”, May 29- June 2, 2022.
P.Q. Tranchida, A. Arena, L. Mondello, **M. Zoccali**.

Determination Of Various Types Of Contaminants In Vegetable Oils Through Minimal Sample Preparation And Cryogenic-Modulation PTV GC×GC-QqQMS.
Oral Communication.

150. 19th International GC×GC Symposium “Virtual”, May 29- June 2, 2022.
M. Galletta, L. Mondello, **M. Zoccali**, P.Q. Tranchida.
A Sustainable Method For The Characterization Of The Volatile Fraction Of Capsicum Peppers By HS SPME-GC×GC-ToF MS Using Hydrogen As Carrier Gas.
Poster Communication.
151. 19th International GC×GC Symposium “Virtual”, May 29- June 2, 2022.
A. Arena, L. Mondello, **M. Zoccali**, P.Q. Tranchida.
Use Of Comprehensive Two-Dimensional Gas Chromatography For The Direct Analysis Of Phthalate Esters In Vegetable Oils.
Poster Communication.

SCIENTIFIC TRAINING, AND COURSES

01. Seminar on General Risks Present in Laboratories “Rischi Generali Presenti nei Laboratori” e “Principali Procedure Tecniche/Amministrative per lo Svolgimento in Sicurezza delle Attività Lavorative”. Messina (Italia), March 3, 2011.
02. Seminar on “Nanoparticles Derived from Plant Virus” (by prof. Santi) and “Macronutrients and Integration of Metabolism” (by prof. Dugo). Messina (Italy), march 22, 2012.
03. Seminar by Waters “New Solutions for Environmental and Food Analysis”. Messina (Italy), March 28, 2012.
04. Seminar on “Introduction to Mass Spectrometry” (by prof. Tranchida) e “Tandem Mass Spectrometry” (by prof. Saitta). Messina (Italia), March 30, 2012.
05. National training course on “Analytical and bioanalytical methods in Mass Spectrometry”. Parma (Italy), May 14-18, 2012.
06. Seminar on “Characterization of the volatile fraction in foods of plant origin” (by prof. Bicchi). Messina (Italy), July 4, 2012.
07. Solid Phase Micro Extraction (SPME) course, at the 14th ExTech, Messina (Italia), September 26, 2012.
08. Seminar Waters “UltraPerformance – MS Technology Seminar”. Messina (Italy), June 5 2013.
09. Seminar on General Risks Present in Laboratories “Rischi Generali Presenti nei Laboratori” e “Principali Procedure Tecniche/Amministrative per lo Svolgimento in Sicurezza delle Attività Lavorative”. Messina (Italia), February 8-10, 2017.

REVIEWER ACTIVITIES

He has acted as a reviewer for the following international journals: Analytical and Bioanalytical Chemistry (Springer), Journal of Separation Science (Wiley and Sons), Trends in Analytical Chemistry (Elsevier B.V.), Journal of Chromatography A (Elsevier B.V.), Talanta (Elsevier B.V.), Industrial Crops and Products (Elsevier B.V.), Fuel (Elsevier B.V.), Flavour and Fragrance Journal (Wiley and Sons), and Food Analytical Methods (Springer), Chromatographia (Springer), Scientific Reports (Springer Nature Limited), Beverages (MDPI), Energy & Fuels (ACS Publications), Journal of Analytical Methods in Chemistry (Hindawi), Molecules (MDPI), Journal of Pharmaceutical and Biomedical Analysis (Elsevier B.V.), Rapid Communications in Mass Spectrometry (Wiley and Sons), Journal of the Science of Food and Agriculture (Wiley and Sons), Advances in Sample Preparation (Elsevier B.V.),

EDITOR ACTIVITIES

- **Early Career Editorial Advisory Board of the Journal “Advances in Sample Preparation” (AiSP).**
- **Guest editor for Separations MDPI, Special issue “Multidimensional Chromatography”.**
- **Guest editor for Separations MDPI, Special issue “Analysis of Complex Samples: Liquid Gas and Supercritical Fluid Chromatography Methods”.**
- **Guest editor for Frontiers in Analytical Science, Special issue “Multidimensional Chromatography Techniques”.**

CONFERENCES ORGANIZATION

He is part of the organizing committee of 48TH International Symposium on High-Performance Liquid Phase Separations and Related Techniques 2019 conference.

He is part of the scientific and organizing committee of the 1st European Sample Preparation Conference (11 - 12 March, 2021).

He is part of the scientific and organizing committee of the 2nd European Sample Preparation e-Conference, and of the 1st Green and Sustainable Analytical Chemistry e-Conference (14 - 16 March, 2021).

LEADER of the WG3 of the European Chemical Society – Division Analytical Chemistry Sample Preparation Study Group

Member of the Società Chimica Italiana

SCHOLARSHIPS

University scholarships for the academic years 05/06, 06/07, 07/08.

