

CURRICULUM VITAE

Zoccali Mariosimone, PhD

Last Name:	Zoccali
First Name:	Mariosimone
Date of Birth:	
Place of Birth:	
Current Position:	Assistant Professor, University of Messina, Italy
E-mail address:	mzoccali@unime.it
Nationality:	Italian

EDUCATION/WORK

- 10 July 2019 – Assistant Professor 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

Abilitato 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.

Starting from 2019-20, 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.

Starting from 2020-21, member of the teaching board of the PhD program in Chemical Sciences, at the University of Messina.

Mentor of 1 PhD student.

Supervisor of 2 students (Master Degree).

AWARDS

- The Analytical Scientist Innovation Awards (TASIAS) 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 Oct 21; 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 january 1; 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 September 16; 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 January 1; 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.

CV

Mariosimone Zoccali

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 February; 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 February; 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 July; 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 September; 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 August; 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 November; 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. 2014 December; 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 August; 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.

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 November, 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 April, 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 February, 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 March; 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 March; 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 July; 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. October 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. March 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.*).
Arch. Biochem. Biophys. March 2018; 646, 161-167.

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. October 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. November 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 June, 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 November 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 March 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. July 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. May 2019; 116, 158-165.
33. **Mariosimone Zoccali**, Peter Q. Tranchida, Luigi Mondello.
Fast Gas Chromatography-Mass Spectrometry: A Review Of The Last Decade.
TRAC-Trend. Anal. Chem. September 2019; 118: 444-452.

34. **Mariosimone Zoccali**, Daniele Giuffrida, Fabio Salafia, Carmen Socaciu, Kari Skjånes, Paola Dugo, Luigi Mondello.
First Apocarotenoids Profiling of Four Microalgae Strains.
Antioxidants July 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 November 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 November 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 adaptation 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 July 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 May 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. May 2020:13, 1523-1529.
43. **Mariosimone Zoccali**, Daniele Giuffrida, Fabio Salafia, Francesca Rigano, Paola Dugo, Monica Casale, Luigi Mondello.