

Veronica Termopoli

Researcher in Analytical Chemistry



CONTACT

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SOCIAL



PROFILE

Veronica Termopoli graduated in Environmental Sciences, achieved her Ph.D. in Chemical and Pharmaceutical Sciences in 2011. She worked at the University of Urbino as a post-doctoral research fellow for ten years. Her scientific activity was focused on developing new LC-MS/MS and GC-MS/MS methods in challenging matrices using miniaturized extraction techniques and microfluidic devices. She actively worked in designing and developing a new LC-MS interface to couple EI-based MS with liquid chromatography (LEI-interface), testing its performance in several environmental, pharmaceutical, and forensic applications. Since 2014, she has also been involved in direct mass spectrometry development using Membrane Introduction Mass Spectrometry (MIMS) combined with MS as a tool for real-time/in-situ determinations. In 2018 she won the Canada-Italy Innovation Award with the Project - *Development and Application of Condensed Phase Membrane Introduction Mass Spectrometry with Direct Liquid Electron Ionization for the Online Measurement of Trace Components in Complex Samples* – joining the AERL Laboratories at the Vancouver Island University (Canada) as visiting scientist. In 2021, she obtained the Italian National Scientific Qualification (ASN) to Associate Professorship in Analytical Chemistry (03/A1, CHIM/01). Now, she is an Analytical Chemistry Researcher at the Milano Chemometrics and QSAR Research Group (Department of Earth and Environmental Science, University of Milano - Bicocca). Veronica Termopoli published more than 30 research articles on several international papers on instrumental and methods development in several application fields. Since 2008, she has delivered more than 20 oral communications at national and international scientific conferences.

EDUCATION

A.Y. 2019-2020

II Level Professional Master in Chemical and Chemical-Toxicological Forensic Analysis

Alma Mater Studiorum,
University of Bologna (Italy)

A.Y. 2009-2010

Ph.D in Chemical and Pharmaceutical Sciences

University of Urbino, Italy

Dissertation title:

“Advances in LC-MS Interfacing for the Detection of Small Molecules: Instrumental Development, Performance and Applications “

A.Y. 2005-2006

Master degree in Environmental Sciences

University of Urbino, Italy

DIGITAL SKILLS

Advanced use of Office Package

Excellent knowledge of

Design software:

Adobe Illustrator

Photoshop

Affinity Designer

PROFESSIONAL EXPERIENCE

2019 – 2021

POST-DOCTORAL RESEARCH FELLOW

LC-MS Laboratory, Department of Pure and Applied Sciences, University of Urbino (Italy)

Co-leader of the project: *“Liquid Electron Ionisation To Address Capability Gaps In Small Molecule Measurement In Crop Protection”*.

Third-party agreement among Syngenta Ltd (UK), Agilent Technologies (USA) and University of Urbino

2018

VISITING SCIENTIST

AERL Laboratories, Vancouver Island University, (Canada)

Project: *“Development and Application of Condensed Phase Membrane Introduction Mass Spectrometry with Direct Liquid Electron Ionization for the Online Measurement of Trace Components in Complex Samples”*

Supervisor: Prof. Chris G. Gill

2012 – 2018

POST-DOCTORAL RESEARCH FELLOW (ART. 22, 30/12/2010, N. 240, 03/A1-CHIM/01)

LC-MS Laboratory, Department of Pure and Applied Sciences, Department of Pure and Applied Sciences, University of Urbino (Italy)

Project: *“Chemical Characterization of Environmental Risk Factors in The Sudden Infant Death Syndrome (SIDS) And Sudden Intrauterine Unexpected Death (SIUD)”*

2009 – 2012

RESEARCH FELLOW (ART. 51, 27/12/1997, N. 449, 03/A1-CHIM/01)

LC-MS Laboratory, Department of Earth, Life and Environmental Sciences, University of Urbino (Italy)

Project: *“Development of A Universal Detector LC-MS For Identification of Small Molecules”*.

2008 – 2009

RESEARCH FELLOW

Istituto di Scienze Chimiche “F.Bruner”, University of Urbino (Italy)

Project: *“Study of New Instrumental Analytical Techniques”*

JOB RELATED SKILLS

Excellent knowledge of analytical instrument software:
Agilent Mass Hunter
Chromeleon
Chemstation

LANGUAGES

Mother Tongue: Italian
Good Level of written and spoken English

2006

OCCASIONAL WORK CONTRACT

ICRAM – Istituto Centrale per la Ricerca Scientifica e Tecnologica Applicata al Mare, Roma
Occasional work contract as chemical analyst in the determination of the total hydrocarbons in sea sediment samples

AWARD

2018

Winner of the Canada-Italy Innovation Award

Canadian Embassy

Development and Application of Condensed Phase Membrane Introduction Mass Spectrometry with Direct Liquid Electron Ionization for the Online Measurement of Trace Components in Complex Samples

2016

ITWIIN – Associazione Italiana Donne Inventrici e Innovatrici

Finalist of the "ITWINN 2016" with a "New Liquid EI Interface"
CNR, Bologna, Italy

PATENT

MACHINE FOR CHEMICAL ANALYSIS COMPRISING THE COMBINATION OF ELECTRON IONIZATION MASS SPECTROMETRY WITH LIQUID CHROMATOGRAPHY

Co-Inventor

Depository:

US202003008222020- EP36952232019- - WO2019073458

GUEST EDITOR

2018 – 2018

Advances in MS-Based Analytical Methods: Innovations and Future Trends

Special Issue published in the Journal of Analytical Methods in Chemistry, Volume 2018, Article ID 2084567, 2 pages
<https://doi.org/10.1155/2018/2084567>

CONFERENCES AND SEMINARS

04/06/2020 – 12/06/2020

Qualitative and Quantitative Advantages of Liquid Electron Ionization (LEI) Interface in Pesticides Analysis of Complex Matrices

V. Termopoli, G. Famiglini, P. Palma, A. Cappiello, S. Perry, M. Saeed.

ASMS Reboot 2020 Oral Presentation

22/09/2019 – 26/09/2019

Water-Assisted Trap Focusing for Ultra-Large Volume Injection in Reversed-Phase Nano-Liquid Chromatography-Electron Ionization Mass-Spectrometry

V. Termopoli, P. Vocale, G. Famiglini, G.L. Morini, P. Palma, A. Cappiello, S. Perry, M. Saeed. **XXVIII Congresso della Divisione di Chimica Analitica della Società Chimica Italiana, Bari, Italy Oral Presentation**

02/06/2019 – 06/06/2019

Water and temperature-assisted trap focusing for ultra-large volume injection in reversed-phase nano-liquid chromatography mass-spectrometry

V. Termopoli, P. Vocale, G. Famiglini, G.L. Morini, P. Palma, A. Cappiello, S. Perry, M. Saeed.

67th ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, (USA) Poster Presentation

03/06/2018 – 08/06/2018

Online Reaction Monitoring in Non-Aqueous Solutions by Condensed Phase Membrane Introduction Mass Spectrometry-Liquid Electron Ionization (CP-MIMS-LEI)

V. Termopoli, G. W. Vandergrift, M. Piergiovanni, G. Famiglini, P. Palma, E.T. Krogh, A. Cappiello, CG. Gill.

66th ASMS Conference on Mass Spectrometry and Allied Topics. San Diego (USA) Oral Presentation

10/07/2017 – 11/07/2017

Novel Aspects and Performance evaluation of a Liquid-El (LEI) MS interface

V. Termopoli, G. Famiglini, P. Palma, M. Piergiovanni, A. Cappiello.

Giornate di Chimica Analitica in Memoria del Prof. Francesco Dondi, Ferrara, (Italy) Oral Presentation

01/06/2017 – 05/06/2017

An innovative Liquid-El interface coupled to a UHPLC method for analysis of xenobiotics, exemplified with organochlorine pesticides in soil matrix

V. Termopoli, G. Famiglini, P. Palma, M. Piergiovanni, A. Cappiello, S. Perry, M. Saeed. **65th ASMS Conference on Mass Spectrometry and Allied Topics. Indianapolis (USA) Poster Presentation**

18/09/2016 – 22/09/2016

Liquid El (LEI) Interface: a new concept for Interfacing Liquid Chromatography and Electron Ionization Mass Spectrometry

V. Termopoli, P. Palma, G. Famiglini, M. Piergiovanni, A. Cappiello.

XXVI Congresso della Divisione di Chimica Analitica della Società Chimica Italiana, Naxos, (Italy) Oral Presentation

04/06/2016 – 09/06/2016

UHPLC-Liquid-El-MS/MS Interface: A New Frontier for Multiclass Environmental Risk Factors in Sudden Infant Death Syndromes

V. Termopoli, P. Palma, G. Famiglini, A. Cappiello.

64th ASMS Conference on Mass Spectrometry and Allied Topics. San Antonio (USA) Poster Presentation

30/05/2015 – 04/06/2015

Identification of Non-Targeted Contaminants in Brain Tissue with GC-MS: A case of Sudden Infant Death

V. Termopoli, AM. Lavezzi, L. Maturri, A. Cappiello.

63th ASMS Conference on Mass Spectrometry and Allied Topics. Sant Louis, (USA) Poster Presentation

20/05/2014 – 23/05/2014

Environmental Risk Factors in the Sudden Infant and Sudden Intrauterine Death Syndromes: an Analytical Approach

V. Termopoli, Giorgio Famiglini, Pierangela Palma, Achille Capiello. **38th International Symposium on Capillary Chromatography and 11th GCxGC Symposium. Riva del Garda, (Italy) Oral Presentation**

04/11/2013 – 04/11/2013

Rapid and Sensitive GC-MS and GCxGC-MS Method for the Determination of Endocrine Disrupting Compounds in Human Fetal and Newborn Tissue

V. Termopoli.

D-DEMİNAR, Una giornata di Studio con i Principali Ricercatori Italiani e prove pratiche sugli Strumenti, Cologno Monzese, (Italy) Oral Presentation

15/09/2013 – 19/09/2013

DIRECT-EI/LC-MS in Food Safety Applications: Multicomponent Analysis of Environmental Contaminant Residues in Milk Powder Raw Materials

V. Termopoli, G. Famiglini, P. Palma, F. Capriotti, N. Cellar, A. Capiello.

XXIV Congresso della Divisione di Chimica Analitica della Società Chimica Italiana, Sestri Levante, (Italy) Oral Presentation

16/09/2012 – 20/09/2012

Rapid Extraction Method for GC/MS Detection of Environmental Pollutant Residues in Human Fetal and Newborn Tissues

V. Termopoli, P. Palma, G. Famiglini, A.M. Lavezzi, L. Maturri, A. Capiello.

XXIII Congresso Nazionale della Divisione di Chimica Analitica della Società Chimica Italiana. Isola d'Elba, (Italy) Oral Presentation

01/05/2010 – 04/05/2010

Analysis of non-chromophoric pharmaceutical compounds by LC-EI-MS

V. Termopoli, G. Famiglini, H. Trufelli, A. Cappiello

34th International Symposium on Capillary Chromatography and 7th GCxGC Symposium. Riva del Garda, (Italy) Poster Presentation

31/05/2009 – 04/06/2009

Single Step LC-MS Method for the Simultaneous Determination of GC Amenable Organochlorine and LC Amenable Phenoxy Acidic Pesticides

V. Termopoli, G. Famiglini, P. Palma, H. Trufelli, A. Cappiello.

57th ASMS Conference on Mass Spectrometry and Allied Topics, Philadelphia, PA, (USA) Poster Presentation

21/09/2008 – 25/09/2008

Overcoming signal suppression and other matrix effects in nano-HPLC-MS using electron ionization

V. Termopoli, H. Trufelli, G. Famiglini, E. Pierini, P. Palma, A. Cappiello

XXI Convegno Nazionale di Chimica Analitica della Società Chimica Italiana, Arcavacata di Rende, (Italy) Oral Presentation

26/05/2008 – 28/05/2008

Overcoming Signal Suppression and other Matrix Effects In nano-HPLC Bioanalysis using Electron ionization

V. Termopoli, G. Famiglini, P. Palma, E. Pierini, H. Trufelli, A. Cappiello.

32th International Symposium on Capillary Chromatography and 5th Poster Presentation

CONFERENCE AS INVITED SPEAKER

30/05/2015 – 04/06/2015

Advancements in LC-Direct EI-MS Interfacing: New strategies to boost Sensitivity and Specificity

V. Termopoli

63th ASMS Conference on Mass Spectrometry and Allied Topics. St. LOUIS (USA)

SEMINARS AS INVITED SPEAKER

21/09/2018 – 21/09/2018

**Liquid-El Project: A new Frontier for Liquid Chromatography
Electron Ionization Mass Spectrometry**

V. Termopoli

**Seminar at the Department of Chemistry, University of British
Columbia, Vancouver, BC, Canada**

07/04/2016 – 07/04/2016

**Seminar: Endocrine Disrupting Compounds in Human
Tissues for SIDS and SIUDS Environmental Risk Factors
Assessment**

V. Termopoli

"La problematica della patologia fetale, placentare e del neonato
pretermine: incontro tra le varie discipline"

Unità Ospedaliera, Bolzano, Italy

Co-SUPERVISION IN ACADEMIC COURSES

2011 - now

She is co-tutor of more than 10 Bachelor Degree and Master
Degree Thesis in Biology (LM-6) and Biotechnology (L-2).

COURSES

12/05/2012 – 18/05/2012

GC-MS Workstation

Agilent Technologies, Milano, Italy

19/05/2008 – 23/05/2008

**National School of Analytical Methodologies in Mass
Spectrometry**

Società Chimica Italiana Divisione di Chimica Analitica Divisione
di Spettrometria di Massa

University of Parma, Italy

BOOK CHAPTERS

2018 - 2018

Electron Ionization LC-MS: What Is It and Why Use It?

Giorgio Famiglioni, Pierangela Palma, [Veronica Termopoli](#), Achille Cappiello, Svetlana Tsizin, Boaz Seeman, Tal Alon, Alexander B. Fialkov, Aviv Amirav, **Comprehensive Analytical Chemistry 79 (2018) 1-28**. <https://doi.org/10.1016/bs.coac.2017.06.008>

2017 – 2017

High-Performance Liquid Chromatography/Mass Spectrometry Methods in Pesticide Analysis

Achille Cappiello, Pierangela Palma, Giorgio Famiglioni, [Veronica Termopoli](#), **Encyclopedia of Analytical Chemistry in 2017 by JohnWiley & Sons, Ltd.**

<https://doi.org/10.1002/9780470027318.a1713.pub2>

PUBLICATIONS

The complete list of publications can be accessed in Google Scholar or Scopus

<https://scholar.google.com/citations?user=5tO48iEAAAAJ&hl=en>

<https://www.scopus.com/authid/detail.uri?authorId=25923186100>