

Fabio Gosetti

Researcher in Analytical Chemistry



CONTACT

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SOCIAL



EDUCATION

PhD in Chemical Sciences

University of Piemonte Orientale
2002 - 2005

II level Master Degree

(97/100)
FORAL & University of Piemonte Orientale
2002 – 2003

PROFILE

Fabio Gosetti graduated in Chemistry in 2002 and he received the PhD in Chemical Sciences in 2005. He worked for 14 years at University of Piemonte Orientale as lab technician expert in the field of hyphenated techniques, in particular as concerns the development and the validation of LC-MS/MS methods for the determination of target and non-target species in food, biological and environmental matrices.

In 2013, he obtained the Italian National Qualification (ASN) to Associate Professorship in Analytical Chemistry and in September 2019, he obtained the ASN to both Associate Professorship and Full Professorship in Analytical Chemistry.

Now, he is Analytical Chemistry Researcher at the Milano Chemometrics and QSAR Research Group (Department of Earth and Environmental Science, University of Milano - Bicocca).

He is author of 74 manuscripts published in peer-review journals (total IF 276.849, average IF 3.691, citations: 1871, H-index: 24, by Scopus update 13 December 2019), 5 peer-reviewed conference proceedings and 10 book chapters (invited).

Since 2006 he has been invited to lecture at more than 20 seminars, workshops and schools, and in 2015, he has been a member of the organizing committee of 16th European Meeting of Environmental Chemistry.

He attended about one hundred schools, congresses and seminars. He presented 35 oral and 17 poster communications as author and more than 80 communications as co-author in national and international conferences.

He co-operated in national and European research projects COFIN03, ATF, Ricerca Sanitaria Finalizzata, CARIPOLO 2014, CARIPOLO 2015, IZS_PLV 2015, IZS_PLV 2016, CARIPOLO 2016, H2020 Marie Skłodowska-Curie Actions, EITN.

He was supervisor of many consultation activities both at public authorities and private companies (Coop Italia, ARPAV, Solfotecnica SpA, Italfarmaco, Ebrille SpA).

PROFESSIONAL EXPERIENCES

Researcher

December 2019 - now

Researcher in Analytical Chemistry at Milano Chemometrics and QSAR Research Group (Department of Earth and Environmental Sciences, University of Milano - Bicocca).

Lab Technician

April 2009 – November 2019

Master Degree in Chemistry

(110/110 cum laude)

University of Piemonte Orientale
1997 - 2002

LANGUAGES

English: Good spoken and written

German: basic spoken and written

INFORMATIC SKILLS

Advanced use of Office package

LC-MS acquisition and reprocessing software:

XCalibur, Chromeleon, Masslink,, Empower, Analyst, Peakview, Masterview, Markerview,...

Lab Technician (permanent employment), University of Piemonte Orientale, Italy

Lab Technician

January 2006 - April 2009

Lab Technician (temporary employment), University of Piemonte Orientale, Italy

Postdoctoral research

December 2005

"Production control of typical Piedmont cheese by HPLC-MS determination of biogenic amines content and other parameters of food health", DISAV, University of Piemonte Orientale, Italy

Scholarship

November 2005

"HPLC-MS/MS method development for the selenium speciation in food supplements", DISAV, University of Piemonte Orientale, Italy

PhD in Chemical Sciences

November 2002 – December 2005

"Methods of analysis and control in food chemistry by chromatographic techniques with UV-vis and mass spectrometry detections", University of Piemonte Orientale, Italy

II level Master Degree

November 2002 – June 2003

"Quality Systems Designer for Industrial Processes and Measurement Laboratories", (FORAL & University of Piemonte Orientale, Italy)

Government exam and licensed as a profession chemist

January 2003

University of Pavia, Italy

Master's Degree in Chemistry

October 1997 – July 2002

"Food dye. Determination methods and degradation studies by HPLC and HPLC-MS techniques"

TEACHING in ACADEMIC COURSES

2019-2020

Lecturer of the course "Laboratory of Instrumental Analytical Chemistry", Bachelor degree in Sciences and Chemical Technologies, University of Milano-Bicocca

2017-2019

Lecturer of the course "Hyphenated Techniques", Master degree in Chemical Sciences at University of Piemonte Orientale

2001-2018

He has collaborated to didactics in the academic course of Analytical Chemistry for the Bachelor degrees in Chemistry and Environmental Sciences at the University of Piemonte Orientale

2004 - now

He is co-tutor of more than 30 Bachelor Degree and Master Degree Thesis in Chemistry and Chemical Sciences, and a PhD thesis in Chemical Sciences.

SCIENTIFIC POSITION

2018 - now

Member of the European Science Foundation College of Expert Reviewers

2017 - now

Member of Editorial Panel Board of EC Nutrition (ECronicon)

2016 - now

Member of Editorial Board of Separations (MDPI)

2015 - 2017

Member of the Editorial Board of The Journal of Chemistry: Analytical Chemistry (Hidawi)

2013 - 2017

Member of the Editorial Board of The Scientific World Journal: Environmental Chemistry (Hidawi)

2012 - now

Member of Editorial Board of Journal of Pharmaceutical Analysis (Elsevier)

2012 - now

Member of Editorial Board of Current Chromatography (Bentham Sciences Publisher)

2012 - now

Member of the Interdivisional Group of Science Separation of the Italian Chemical Society (SCI)

2010 - 2011

Reviewer of the Committee for Physical Sciences of Czech Science Foundation – Grant Agency of the Czech Republic.

2003 - now

Member of the Analytical Chemistry Division and Mass Spectrometry Division of the Italian Chemical Society (SCI)

2008 - now

Reviewer for several journals among which Mass Spectrometry Reviews, Trends in Analytical Chemistry, Analytical Chemistry, Journal of

Chromatography A, Journal of Chromatography B, Analytica Chimica Acta, Talanta, Analytical and Bioanalytical Chemistry, Journal of Hazardous Materials, Food Chemistry, Journal of Agricultural and Food Chemistry, Food Analytical Methods, Food Additives and Contaminants, Analytical Letters, Analytical Methods, Journal of Separation Science, Rapid Communication Mass Spectrometry, etc

AWARD

2016

Winner of the best poster presentation at IMaSS Got Talent, Italian Mass Spectrometry Society

2006

Winner of the award "Young Researcher" of the Analytical Chemistry Division of the Italian Chemical Society

2004

Award "Giovanni Galli" taking part at the 8th School of Mass Spectrometry for graduate students organized by the Mass Spectrometry Division of the Italian Chemical Society

2003

Award for the best graduate of the Faculty of Mathematical Physical and Natural Sciences of the University of Piemonte Orientale (academic year 2001/2002)

2003

Award of the Analytical Chemistry Division of Italian Chemical Society for the best national degree thesis (academic year 2001/2002)

MAIN FIELDS OF INTEREST

1. Analytical Chemistry
2. Development, optimization and validation of analytical methods
3. Environmental and food safety
4. Identification and determination of unknown compounds
5. Characterization of typical food, traceability and authentication studies

CURRENT ISSUES OF RESEARCH

Development, optimization and validation of analytical methods

Development, optimization and validation of new analytical methods (in particular HPLC-MS/MS, UHPLC-MS/MS, online SPE HPLC-MS/MS) by experimental design techniques for the identification and the determination of target and non-target species in the environment (chloroanilines, aromatic sulfonates, pesticides, perfluorocompounds, etc), in food (dyes, biogenic amines, PAHs, aldehydes, etc), and

biological samples (drugs of abuse, benzodiazepines, neurotransmitters, etc).

Degradation studies and identification of new emerging pollutants in the environment

Advanced oxidation processes are generally employed for the destruction of persistent pollutants in the environment. Nevertheless, these kinds of processes do not always lead to complete mineralization of the pollutant, but to a formation of new products of comparable toxicity.

The studies deal with also the natural solar photodegradation of the pollutant in water, the evaluation of the kinetics, and the identification of the new species formed by HPLC-MS/MS or UHPLC-MS/MS using target and non-target approach.

Identification and determination of unknown compounds in food

Identification and determination of unknown species formed in food and beverages for effect of sunlight or for unexpected interactions with other ingredients. These interactions are often unpredictable, but they can give rise to different kinds of contaminations with the formation of new species potentially harmful to consumer health. For this purpose, HPLC and UHPLC coupled with low- and high-resolution tandem mass spectrometry are developed and validated. In the latter case, the use of specific software for the data contextualization and the application of multivariate chemometric techniques (PCA, PCA-DA,...) for the data interpretation are of paramount importance.

Chemical characterization of food

Full fingerprint of food (cheese, wine, salami, tomato sauce, olive oil, etc) by HPLC-DAD, HPLC-MS/MS, UHPLC-MS/MS, IC, GC-MS, ICP OES, and ICP OES, in order to perform traceability and authentication studies

PUBLICATIONS

The complete list of publications can be accessed in Google Scholar at <https://scholar.google.com/citations?hl=it&user=SSqq0N4AAAAJ>