

# Fabio Gosetti

## Curriculum vitae et studiorum

### UNIVERSITY CAREER

Dec 2022 – now	Associate Professor (CHIM/01), University of Milano-Bicocca, Italy
Dec 2019 – Nov 2022	Assistant Professor (CHIM/01), University of Milano-Bicocca, Italy
Jan 2006 – Nov 2019	Lab Technician, University of Piemonte Orientale, Italy

### EDUCATION, QUALIFICATION

Sep 2019	He obtained Italian National Qualification (ASN) to both Associate Professorship and Full Professorship in Analytical Chemistry
Dec 2013	He obtained Italian National Qualification (ASN) to Associate Professorship in Analytical Chemistry
Dec 2005	He received the PhD degree in Chemical Sciences at the University of Piemonte Orientale, Italy, with a thesis entitled: "Methods of analysis and control in food chemistry by chromatographic techniques with UV-vis and mass spectrometry detections".
Jan 2003	He passed the government exam and licensed as a profession chemist at University of Pavia, Italy.
Jun 2003	II Level Master in "Quality Systems Designer for Industrial Processes and Measurement Laboratories", (FORAL & University of Piemonte Orientale, Italy)
Jul 2002	He graduated in Chemistry <i>Summa cum Laude</i> at the University of Piemonte Orientale (Alessandria, Italy)

### DIDACTICS, TEACHING

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
2017-2019	Lecturer of the course "Hyphenated Techniques", for the Master degree in Chemical Sciences at University of Piemonte Orientale

2019-now	Lecturer of the course “ Laboratory of Instrumental Analytical Chemistry”, Bachelor degree of Sciences and Chemical Technologies, University of Milano-Bicocca
2022-now	Lecturer of the course “Instrumental Analytical Chemistry”, Bachelor degree of Sciences and Chemical Technologies, University of Milano-Bicocca
2022-now	Lecturer of the course “ Analytical Chemistry and Laboratory”, Bachelor degree of Sciences and Chemical Technologies, University of Milano-Bicocca
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 ACTIVITIES

He is author of 94 manuscripts published in peer-review journals (H-index: 29, by Scopus update 7 December 2022).

Since 2006 he has been invited to lecture at more than 30 seminars, workshops and schools, and he has been a member of the several organizing and scientific committees, among which 16<sup>th</sup> European Meeting of Environmental Chemistry (Turin, 2015), Global Summit on Pharmaceuticals and Drug Delivery Systems (Monaco, 2022), PharmaMeet2022, International meet on pharmaceuticals and drug delivery systems (Tokyo, 2022). He attended about one hundred of schools, seminars and national and international congresses, where he presented numerous oral and poster communications.

He co-operated in national and European research projects COFIN03, ATF, Ricerca Sanitaria Finalizzata, CARIPO 2014, CARIPO 2015, IZS\_PLV 2015, IZS\_PLV 2016, CARIPO 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).

### SCIENTIFIC POSITIONS

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

2010 - 2011	Reviewer of the Committee for Physical Sciences of Czech Science Foundation – Grant Agency of the Czech Republic.
2012 - now	Member of the Interdivisional Group of Science Separation of the Italian Chemical Society (SCI)
2012 - now	Member of Editorial Board of Current Chromatography (Bentham Sciences Publisher)
2012 - now	Member of Editorial Board of Journal of Pharmaceutical Analysis (Elsevier)
2013 - 2017	Member of the Editorial Board of The Scientific World Journal: Environmental Chemistry (Hidawi)
2015 - 2017	Member of the Editorial Board of The Journal of Chemistry: Analytical Chemistry (Hidawi)
2016 - now	Member of Editorial Board of Separations (MDPI)
2017 - now	Member of Editorial Panel Board of EC Nutrition (ECronicon)
2018 - now	Member of the European Science Foundation College of Expert Reviewers
2020-2022	Member of Editorial Board of Chemosensors (MDPI)

## AWARDS

2003	Award of the Analytical Chemistry Division of Italian Chemical Society for the best national degree thesis (academic year 2001/2002)
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).
2004	Award “Giovanni Galli” taking part at the 8 <sup>th</sup> School of Mass Spectrometry for graduate students organized by the Mass Spectrometry Division of the Italian Chemical Society
2006	Winner of the award “Young Researcher” of the Analytical Chemistry Division of the Italian Chemical Society
2016	Winner of the best poster presentation at IMaSS Got Talent, Italian Mass Spectrometry Society

## 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

### **1. 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) 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).

### **2. Degradation studies and identification of new emerging pollutants in environment**

Advanced oxidation processes are generally employed for the destruction of persistent pollutants in the environment. Nevertheless, these kind of processes do not always lead to a 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 pollutants 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.

### **3. 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 the 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.

### **4. 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.