

<b>Part A. PERSONAL INFORMATION</b>		<b>CV date</b>		15/01/2024
First and Family name	Mira Petrovic			
Social Security, Passport, ID number	X2772838G	Age	58	
Researcher numbers	Researcher ID	L-1789-2014 (WoS) 57200299586 (Scopus)		
	Orcid code	0000-0001-9734-1933		

## A.1. Current position

Name of University/Institution	ICRA - Catalan Institute for Water Research		
Department	Water Quality Area		
Address and Country	Emili Grahit, 101, 17003 Girona		
Phone number	972 18 33 80	E-mail	<a href="mailto:mpetrovic@icra.cat">mpetrovic@icra.cat</a>
Current position	ICREA Research Professor	From	01.12.2005.
Espec. cód. UNESCO	2301		
Palabras clave	Environmental analytical chemistry; emerging contaminants; fate and behaviour in water treatment;		

## A.2. Education

Degree	University	Year
Ph. D. (Chemistry)	Faculty of Chemical Engineering and technology, University of Zagreb, Croatia	1995
Master of Science (Chemistry)	Faculty of Chemical Engineering and technology, University of Zagreb, Croatia	1991
Bachelor of Science (Chemical Engineering)	Faculty of Chemical Engineering and technology, University of Zagreb, Croatia	1988

## A.3. JCR articles, h Index, thesis supervised...

**Highly cited researcher** 2018 (top 1%) in the category of Environment/Ecology and 2019 in cross-field by Clarivate Analytics

<b>h-index</b> (Scopus January 2024)	<b>84</b>
Total Publications (including book chapters)	282
Publications Q1	235
Sum of the Times Cited (without self-citations)	>21.000
Average citations per year (2019-2023)	>1700
Doctoral theses directed	12 (+3 in course)

## Part B. CV SUMMARY (max. 3500 characters, including spaces)

Born 1965, Sarajevo, Bosnia and Herzegovina. PhD in Chemistry (1995), Faculty of Chemical Engineering and Technology, University of Zagreb, Croatia. From 1988 to 1999 at the Faculty of Chemical Engineering and Technology, University of Zagreb, Croatia first as junior researcher, and later as assistant, senior assistant and assistant professor. From 1999-2011 research scientist at the Department of environmental chemistry, Institute for environmental assessment and water studies (IDAEA-CSIC), Barcelona. Since December 2005 ICREA Research Professor, first at IDAEA-CSIC and since July 2011 at the Catalan Institute for Water Research (ICRA), Girona, Spain, where she is the **Head of Water Quality and Safety Area** and responsible for the research line "Contaminants in water treatment".

She has participated in more than 30 EU projects since 1999 and over a dozen national projects. Among them, she has been the **coordinator of an H2020 MSCA EJD** (European Joint Doctorate) project - NOWELTIES and **the coordinator of an H2020 MSCA EID** (European Industrial Doctorate) project TreatREC. Currently, she is PI of H2020 project EMERGE, PI of recently awarded H2020 project ProCleanLakes, co-PI of WaterPrint (AEI Spanish coordinated project) and co-PI of TED project CityPoll (AEI Spanish coordinated project). She has published over 250 research papers and reviews, and 32 book chapters, edited 8 books. Prof Petrovic's current **H-index is 84**, with **> 21.000 citations**. She is included in the **ISI Highly Cited** in the fields of Chemistry and Environment/Ecology and ranked in the top 1% by citations in 2018 in the field of Environment/Ecology and in 2019 in the cross-field by Clarivate Analytics.

Her main expertise lies in the field of analytical environmental chemistry, particularly the chemical analysis of organic microcontaminants using advanced mass spectrometric techniques. She focuses on studying the fate and behavior of these contaminants in the aquatic environment, as well as in engineered systems (wastewater and drinking watertreatment). Specific research areas include: (i) Investigation of biotic and abiotic transformations of emerging contaminants, including the identification of transformation products and elucidation of transformation pathways; (ii) Examination of the occurrence and distribution of emerging contaminants in the aquatic environment, along with environmental risk assessment; (iii) Exploration of sustainable wastewater management, involving the application of innovative wastewater treatment technologies and the development of innovative practices for the reuse of reclaimed waters.

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

#### *Publications in peer-reviewed scientific journals (10 selected, last 5 years)*

García-Gómez, E., Gkotsis, G., Nika, M.C., Gros, M., **Petrović, M.**, Characterization of scrubber water discharges from ships using comprehensive suspect screening strategies based on GC-APCI-HRMS, *Chemosphere* 343 (2023) 140296, IF: 8.8

Gros M, Mas-Pla J, Sanchez-Melsio A, Čelić, M., Castaño, M., Rodríguez-Mozaz, S., Borrego, C., Balcázar, J.L., **Petrović, M.**, Antibiotics, antibiotic resistance and associated risk in natural springs from an agroecosystem environment, *Science Of The Total Environment*, 857 (2023) 1, 159202, If: 10.754

Rožman, M., Lekunberri, I., Grgić, I., Borrego, C., **Petrović, M.**, Effects of combining flow intermittency and exposure to emerging contaminants on the composition and metabolic response of streambed biofilm bacterial communities, *Science of The Total Environment* 877 (2023), 162818, If: 10.754

Senta, I., Rodríguez-Mozaz, S., Corominas, L., Covaci, A., **Petrovic, M.**, Applicability of an on-line solid-phase extraction liquid chromatography – tandem mass spectrometry for the wastewater-based assessment of human exposure to chemicals from personal care and household products, *Science of the Total Environment* 845 (2022)157309, IF: 10.753.

Čelić, M., Jaén-Gil, A., Briceño-Guevara, S., Rodríguez-Mozaz S., Gros, M., **Petrović, M.**, Extended suspect screening to identify contaminants of emerging concern in riverine and coastal ecosystems and assessment of environmental risks, *Journal of Hazardous Materials* 404 (2021)124102, if: 14,224

Gros, M., Catalan, N., Mas-Pla, J., Celic, M., **Petrovic, M.**, Farre, M.J., Groundwater antibiotic pollution and its relationship with dissolved organic matter: Identification and environmental implications, *Environmental Pollution*, 289 (2021) 117927., If: 9.988

Čelić, M., Škrbić, B.D., Insa, S., Gros, M., **Petrović, M.**, Occurrence and assessment of environmental risks of endocrine disrupting compounds in drinking, surface and wastewaters in Serbia, *Environmental Pollution* 262, (2020) 14344, If: 8,071

Senta, I., Rodríguez-Mozaz, S., Corominas, L., **Petrovic, M.**, Wastewater-based epidemiology to assess human exposure to personal care and household products – A review of biomarkers, analytical methods, and applications, *Trends in Environmental Analytical Chemistry* 28 (2020) e00103, If: 9,600

Gros, M., Marti, E., Balcázar, J.L., Boy-Roura, M., Busquets, A., Colón, J., Sànchez-Melsió, A., Lekunberri, I., Borrego, C., Ponsá, S., **Petrovic, M.**, Fate of pharmaceuticals and antibiotic resistance genes in a livestock waste treatment plant: a successful case study for nutrient recovery and risk mitigation, *J. Haz Mat* 378 (2019) 120716, If: 9.308

Gusmaroli, L., Butiglieri, G., **Petrovic, M.**, The EU watch list compounds in the Ebro delta region: Assessment of sources, river transport, and seasonal variations, *Environ. Pollution*. 253 (2019) 606-615, If: 6,793

### **Books (2 selected)**

Mira Petrovic, Sandra Perez and Damia Barcelo (Editors): *Analysis, Removal, Effects and Risk of Pharmaceuticals in the Water Cycle*, 2nd Edition Occurrence and Transformation in the Environment, Elsevier (series: Comprehensive Analytical Chemistry), 2013

M.Petrovic, S.Sabater, A.Elosegui and D. Barceló (Editors) *Emerging Contaminants in River Ecosystems* Handbook of Environmental Chemistry, vol. 46, Springer Verlag, Berlin, Germany, 2016, pp 220

### **C.2. Research projects and grants**

**CITYPOLL** - City runoff pollution impacts on river biodiversity under extreme climatic events, TED AIE, 1.12.2022-30.11. 2024, ICRA budget 200.000 euros,  
Mira Petrovic - co - principal investigator

**WATER-PRINT** - Comprehensive characterization of organic matter and biomarkers in the water cycle: An integrated study using environmental proteomics and small molecule-high resolution mass spectrometry, coordinated project RETOS AIE, ICRA budget 181.500€,  
Mira Petrovic – co-coordinator

**NOWELTIES** - Joint PhD Laboratory for New Materials and Inventive Water Treatment Technologies. Harnessing resources effectively through innovation; EC H2020-MSCA-ITN-2018; 1-2-2019 - 31-1-2023; total budget 3.422.000 € (ICRA 840.000 Euros)  
Mira Petrovic - project coordinator

**EMERGE** – Evaluation, control and mitigation of the environmental impacts of shipping emissions, H2020-MG-2018.2020; 1-2-2020 - 31-01-2024; budget ICRA 400.000 euros,  
Mira Petrovic - principal investigator

**EFLUCOMP** - Development of cost-efficient technologies based on processes of separation, biological and other innovative processes for the treatment of complex effluents' FEDER · RIS3CAT, Budget ICRA 106.000€ ·  
Mira Petrovic - principal investigator

**TreatREC** - Interdisciplinary concepts for municipal wastewater treatment and resource recovery. Tackling future challenges; EC H2020-MSCA-ITN-2014  
01-01-2015 - 01-01-2019; total Budget 1.267.467 € (ICRA 495.000 €)  
Mira Petrovic - project coordinator

**TransformCoast** - Study of transformation of emerging contaminants in wastewater and receiving riverine and coastal ecosystems; MINECO (I+D+I RETOS); 01-01-2015/ 31-12-2017, Budget: 108.900 €

Mira Petrovic - principal investigator

### C3. Doctoral theses (last 5 years)

Yaroslav Verkh, Characterization of dissolved organic matter in wastewater using liquid chromatography-high resolution mass spectrometry, University of Girona, January 2019

Lucia Gusmaroli, Analysis, occurrence, fate and behavior of emerging micropollutants in wastewater and the receiving environment, University of Girona, May 2020

Mira Celic, Target analysis and suspect screening of wastewater derived contaminants in receiving riverine and coastal areas and assessment of environmental risks, University of Girona, December 2020

Marina Gorga, Analysis and presence of endocrine disrupting compounds in rivers of the Iberian Peninsula, Autonomous University of Barcelona (UAB), January 2023

Francis dela Rosa, Novel TiO<sub>2</sub> based composite co-catalysts for solar driven water purification, doble doctorate University of Girona, University of Zagreb, April 2023

### C.4. Invited presentations at the international conferences (selected)

Pharmaceutical residues in the aquatic environment. Challenges and opportunities of using advanced analytical methods for their monitoring (invited key note) - 9th BBBB International Conference on Pharmaceutical Sciences, 15-17 September 2022, Ljubljana, Slovenia

High Resolution Mass Spectrometry Profiling of Dissolved Organic Matter in Environmental and Processed Water (invited talk) · Pittcon 2017, March 2017 Chicago · (USA - United States of America)

Wastewater derived contaminants of emerging concern. Current and future challenges (**Key note**)" · SETAC Europe 25th Annual Meeting, May 2015, Barcelona, · (Spain)

Best strategies for managing and treating hospital effluents· (invited talk) CRETE2014 - 4th International Conference on Industrial and Hazardous Waste Management, Chania Sept 2014 · (Greece)

### C.5. Organization of scientific meetings (as scientific secretary and co-chair)

1. Four (4) Sednet Workshops organized in Barcelona 2002, Berlin 2003, Lisbon 2004 and San Sebastian 2004, respectively
2. 2nd MTBE Conference Barcelona November 2004.
3. 1st Thematic workshop of the EU project NORMAN on Chemical Analysis of Emerging Pollutants, Maó, Menorca (Balearic island) 2006
4. INNOVA-MED Final Conference, Girona, Spain October 2009
5. Ten (10) Annual Workshops on Emerging High-Resolution Mass Spectrometry and LC-MS/MS Applications In Environmental Analysis And Food Safety. Barcelona 2005, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, 2022

### C6. Others

**Editor-in-chief** of TrEAC - Trends in Environmental Analytical Chemistry (Elsevier, IF:11.2 (2022)).

**Member of the Scientific Advisory Board (SAB)** of CRETUS, Center for Research in Environmental Technologies of the University of Santiago de Compostela, Spain;

**Member of the Advisory Committee** of the Water Campus of the University of Vigo, Spain;