

Guillaume CROSSET-PERROTIN - Environmental engineer EPF

Work experiences

- 2022–now **Ph.D. Student in Environmental Engineering**, *Eawag (Swiss Federal Institute of Aquatic Science and Technology) and ETHZ*, Dübendorf, Switzerland,
Topic: *Microplastics in wastewater systems*
Supervisors: Dr. Ralf Kägi (Eawag), Prof. Eberhard Morgenroth (Eawag, ETHZ)
- 2019–2022 **Environmental engineer**, *Water Protection, Urban Wastewater Management - État de Vaud*, Lausanne, Switzerland
- [Quantitative report](#) about 42 micropollutants in 36 WWTPs on 6 years of data
 - Development of personalized summaries for each WWTP (n=153) of the Canton of Vaud including estimation of waste- and rain water flows, treatment performances and sludge production
 - Support to WWTPs regionalization and micropollutants treatment projects
 - Report about the costs of wastewater treatment in the Canton of Vaud
 - Visits of WWTP, identification and solving of operational dysfunctions (i.e. filamentous bacteria growth)
- 2018 (6 months) **Process engineer trainee**, *Pöyry AG (now AFRY)*, Zürich, Switzerland
- Projects of wastewater treatment plants construction:
- Design of pretreatments, biological and micropollutants removal tanks
 - Writing project reports (SIA Phases 21, 31 and 32)
 - Energetic optimization of WWTP operation
- 2016–2018 **Student assistant**, *EPFL*, Lausanne, Switzerland
- Courses: Environmental bioprocess design, Global issues: Climate, Fundamental of geomatics
- July 2016 **Research assistant**, *SBER Lab (Prof. Tom Battin)*, *EPFL*, Lausanne, Switzerland
- Biofilm and macrozoobenthos collection in alpine streams

Education

- 2016–2019 **M.Sc in Environmental Engineering and Sciences**, *EPFL*, Lausanne, Switzerland.
Main courses: *Wastewater treatment, Environmental bioprocesses, Urban water management, Fate of environmental contaminants*
- 2018–2019 **Master Thesis**, *TU Delft*, Delft, The Netherlands,
Title: *Sugar degradation by mixed-culture containing purple non sulfur bacteria*
Supervisors: Prof. David Weissbrodt and Marta Cerruti (*TU Delft*), Prof. Christof Holliger (*EPFL*)
- 2013–2016 **B.Sc in Environmental Engineering and Sciences**, *EPFL*, Lausanne, Switzerland

Computer skills

Fully literate:

Matlab, Aquasim, MS Office, VBA

Advanced:

ArcGIS, Python

Basic knowledge:

R, C++, RS Minerve

Languages

Native:

French

Written and spoken:

English (C1)

Intermediate:

German (B2-C1)

Miscellaneous

- **Swiss water protection association (VSA) - Young Professionals:** Member of the board (since 2023)
- **Training courses:** Rapid diagnosis of activated sludge processes (OIEau - Office international de l'eau, 30.06-03.07.2020), Activated carbon for micropollutants removal (PEAK - Eawag, 23.06.2021)
- **Hobbies:** Climbing, ski touring, hiking, reading

20 July 1993 – Möhrlistrasse 62, 8006 Zürich, Switzerland – Swiss citizen

☎ +41 79 820 78 66 • ✉ crosset.guillaume@gmail.com • 🚗 Driving license

Teaching responsibilities

- Cours complémentaires FES *course of basic chemistry and physicochemical analysis for wastewater treatment plants operators in the French-speaking part of Switzerland*, 1 week, September 2022, Switzerland

Peer-reviewed publications

- M. Cerruti, **G. Crosset-Perrotin**, M. Ananth, J.L. Rombouts, D.G. Weissbrodt (2023) *Syntrophy between fermentative and purple phototrophic bacteria to treat and valorize carbohydrate-rich wastewaters*, Bioresource Technology Reports, <https://doi.org/10.1016/j.biteb.2023.101348>

Academic presentations

- **G. Crosset-Perrotin**, M. Wiesner, M. Sander, T. D. Bucheli, E. Morgenroth and R. Kaegi (2024) *Activated Sludge Acts as an Efficient Passive Sampler for Microplastics*, Poster presentation, SETAC Sevilla, 05-09.05.2024, Sevilla, Spain
- **G. Crosset-Perrotin**, M. Wiesner, M. Sander, T. D. Bucheli, E. Morgenroth and R. Kaegi (2024) *The Removal of Microplastics in the Activated Sludge Process Through the Formation of Heteroagglomerates*, Oral presentation, Microplastics.ch V, 22.03.2024, Sion, Switzerland
- **G. Crosset-Perrotin**, M. Philipp, E. Morgenroth and R. Kaegi (2023) *Validation of an Analytical Chain for Microplastics Quantification in Sewage Sludge*, Oral presentation, 18th International Conference on Chemistry and the Environment (ICCE 2023), 12.06.2023, Venice, Italy
- **G. Crosset-Perrotin**, E. Morgenroth and R. Kaegi (2023) *Validation of an analytical chain for microplastics quantification in activated sludge systems*, Oral presentation, Microplastics.ch IV, 24.03.2023, Zürich, Switzerland
- **G. Crosset-Perrotin**, M. Philipp, N. Ashta, A. Moraz, T. D. Bucheli, C. Hueglin, E. Morgenroth and R. Kaegi (2022) *Surrogate standards as a proxy for microplastics extraction efficiency from sewage sludge*, Poster (+pitch) presentation, Microplastics2022, 6-11.11.2022, Monte Verità, Ascona, Switzerland
- **G. Crosset-Perrotin**, R. Kaegi and E. Morgenroth (2022) *Are Wastewater Treatment Plants Relevant Microplastics Sources for Surface Waters?*, Oral presentation, Microplastics.ch III, 06.05.2022, Fribourg, Switzerland
- **G. Crosset-Perrotin**, M. Cerruti and D.G. Weissbrodt (2019) *Substrate and light impacts on novel anaerobic associations of fermenters and purple non sulfur bacteria for waste-based carbohydrate valorization*, Poster presentation, 16th IWA Anaerobic Digestion Conference, 23-27.06.2019, Delft, The Netherlands

Peer review activity

Water Research (1), Environmental Science: Advances (2)