CURRICULUM VITAE

PERSONAL INFO

Name and Surname: Elisa Girometti

Birth Date: 25/11/1997

Cellular: +39 3349319668

E-mail: elisa.girometti2@unibo.it

Current employment: PhD student in chemical and process engineering at University of Bologna

EDUCATION

PhD in Chemical and Process Engineering

September 2023-currently, expected date of PhD title: March 2027

University of Bologna, supervisor: professor Dario Frascari, co-supervisor: professor Davide Pinelli

Sector: adsorption technology for wastewater treatment

Activities: Preparation, monitoring and data analysis of adsorption batch tests (isoterms), of fluid-dynamic tests and of continuous breakthrough tests conducted in fixed bed columns to remove pharmaceuticals from wastewater treatment plant effluents; optimization of adsorption process and of subsequent desorption step to minimize process cost; modelling of fluid-dynamic tests and breakthrough tests using Aspen Adsorption.

Master's degree in Chemical and Process Engineering

2019- march 2022, University of Bologna

Thesis Title: Critical analysis of the operation of a cogeneration plant with a reciprocating internal combustion engine

Final Mark: 110/110

Bachelor's degree in Chemical and Biochemical Engineering

2016-october 2019, University of Bologna

Thesis Title: Analysis and optimization of wastewater treatment plants

Final Mark: 110/110 with honours

High School Diploma

2011-2016, Linguistic High School Diploma

Liceo Linguistico T. Mamiani, Pesaro

Final Mark: 100/100 with honours

WORK AND TEACHING EXPERIENCES

Research Fellow — June 2022- october 2023

University of Bologna, Supervisors: professors Dario Frascari and Davide Pinelli

Sector: adsorption technology for wastewater treatment and cost analysis

Activities: Modelling of breakthrough tests conducted to recover phenolic compounds from olive mill wastewaters to develop a model for process scale-up; economic process optimization to evaluate the best operating conditions.

Teaching Assistant — September 2023-currently

Course "Technologies for environmental protection", Master's degree in Chemical and Process Engineering, 30 h per year.

MOTHER TONGUE

Italian

OTHER LANGUAGES

	ENGLISH	FRENCH	GERMAN
Reading	very good (B2)	good (B1)	good (B1)
Writing	very good (B2)	good (B1)	good (B1)
Oral	very good (B2)	good (B1)	good (B1)

TECHNICAL AND COMPUTER SKILLS

Good command of Microsoft Office suite.
Basic knowledge of MATLAB.
Good knowledge of Aspen HYSYS and Aspen Adsorption.

CONFERENCES

- **Oral Presentation** entitled "*Development of an Adsorption Process for the Removal of Pharmaceuticals from Wastewater Treatment Plant Effluents by Means of Molecularly Imprinted Polymers and Commercial Adsorbents*" at the international conference on wider-uptake of water resource recovery from wastewater treatment (**ICWRR 2024**), Palermo, 18- 21 June 2024.
- Poster Presentation "*Development of an adsorption process for pharmaceuticals removal from wastewater treatment plant effluent*" at GRICU PhD school, Bardonecchia, 14-18 January 2024.
- Oral Presentation entitled "*Pharmaceutical removal from wsastewater by adsorption on commercial materials and molecularly imprinted polymers*" at 21st European Symposium on Fluorine Chemistry, Lisbon, 3-9 August 2025.

PUBLICATIONS

- Dario Frascari, Ahmed Rashed, Elisa Girometti, Davide Pinelli, Attilio Toscano, Stevo Lavrnić, Demonstration scale treatment of drainage canal water in the Nile Delta through a combination of facultative lagoons and hybrid constructed wetlands, Journal of Environmental Management, Volume 370, 2024, 122663, ISSN 0301-4797, https://doi.org/10.1016/j.jenvman.2024.122663
- C. Maggetti, D. Pinelli, E. Girometti, E. Papa, V. Medri, E. Landi, F. Avolio, D. Frascari, Development of an ion exchange process for ammonium removal and recovery from municipal wastewater using a metakaolin K-based geopolymer, Chemosphere, Volume 367, 2024, 143559, ISSN 0045-6535, https://doi.org/10.1016/j.chemosphere.2024.143559
- Girometti, E., Maggetti, C., Frascari, D., Pinelli, D., Sisti, L., Savigni, E., Development of an Adsorption Process for the Removal of Pharmaceuticals from Wastewater Treatment Plant Effluents by Means of Molecularly Imprinted Polymers and Commercial Adsorbents, Lecture Notes in Civil Engineering, vol 524. Springer, https://doi.org/10.1007/978-3-031-63353-9_46
- Elisa Girometti, Dario Frascari, Davide Pinelli, Vittorio Di Federico, Giulia Libero, Valentina Ciriello, Polyphenol adsorption and recovery from olive mill wastewater: A model reduction-based optimization and economic assessment, Journal of Environmental Chemical Engineering, Volume 13, Issue 3, 2025, 116370, ISSN 2213-3437, https://doi.org/10.1016/j.jece.2025.116370
- Savigni, E.; Girometti, E.; Sisti, L.; Benstoem, F.; Pinelli, D.; Frascari, D. Development and Validation of Molecularly Imprinted Polymers with Bio-Based Monomers to Adsorb Carbamazepine from Wastewater. *Molecules* **2025**, *30*, 2533. https://doi.org/10.3390/20molecules30122533
- E. Temellini, C. Maggetti, D. Pinelli, E. Girometti, V. Di Federico, M. Venturi, E. Papa, V. Medri, F. Benstoem, D. Frascari, 2025. Development of a combined filtration and ion exchange process for the treatment of combined sewer overflow. J. of Environmental Chemical Engineering, 13 (2025) 118443. https://doi.org/10.1016/j.jece.2025.118443