

# CARLA MAGGETTI

## PhD student in Chemical Engineering

**KEYWORDS**: Adsorption, Ion-exchange, Wastewater Treatment, HPLC, Chromatography

#### **CONTACTS**



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#### PAPERS

- "Ammonium removal and recovery from municipal wastewater by ion exchange using a metakaolin K-based geopolymer", «Water Research», 2022, 225 https://dx.doi.org/10.1016/j.watres.20 22.119203
- "Ammonium recovery from municipal wastewater by ion exchange: Development and application of a procedure for sorbent selection", «Journal of Environmental Chemical Engineering», 2022, 10 https://dx.doi.org/10.1016/j.jece.2022 .108829

#### LABORATORY SKILLS

- **HPLC Chromatography**
- Automatic continuous-flow adsorption column set-up and operation
- Isotherm and Kinetich tests
- Continuous Fluid Dynamic Test
- Management of hazardous substances
- Troubleshooting
- Leadership and Teamwork

#### **LANGUAGES**

**English** Advanced (C1) Italian Mother tongue

#### **E-SKILLS**

Microsoft Office Good knowledge ChemOffice Good knowledge OriginLab Basic knowledge Aspen Plus Basic knowledge Good knowledge Chromeleon

ECDL certificate (2012)

Currently attending an Excel online course

### FORMATIVE EXPERIENCES

Nov 2021 - to date

**PhD STUDENT** 

Department of Civil, Chemical, Environmental and Materials

Engineering – UNIBO

Jul 2022 – to date

"Removal of ammonium, phosphate and micropollutants from combined sewage overflows by adsorption and ion

exchange processes"

STOPUP (Horizon EU Programme)

Nov2021 – Jul2022

"Ammonium and phosphate recovery from municipal wastewater by adsorption and ion exchange processes"

FIT4REUSE (Horizon 2020 Programme)

Sep 2021 – to date

**TEACHING TUTOR:** 

Department of Civil, Chemical, Environmental and Materials

Engineering - UNIBO

- Environmental protection technologies

- Environmental protection and human activities

Sep 2021 - Oct 2021

RESEARCH SCHOLARSHIP HOLDER

Department of Civil, Chemical, Environmental and Materials

Engineering – UNIBO

"Ammonium and phosphate recovery from wastewater by adsorption and ion exchange

processes"

Oct 2019 – Dec 2020

**RESEARCH INTERNSHIP** 

Department of Development and Management of Industrial

Chemical Processes - UNIBO

Thesis: ELECTROCHEMICAL OXIDATION OF GLUCOSE ON NI-FOAM ELECTRODES FOR THE SELECTIVE PRODUCTION OF GLUCONIC ACID AND GLUCARIC ACID

Mentor: Prof. Patricia Benito Martin

Voltammetry, Amperometry, SEM-EDS microscopy, XRD, Raman spectroscopy, HPLC

Jan 2018 – May 2018

RESEARCH INTERNSHIP

Department of Inorganic and Materials Chemistry – UCC

Thesis: COCRYSTALS AND SALTS OF THE BIOACTIVE FLAVONOID NARINGENIN Mentors: Prof. Simon Lawrence (UCC), Prof. Maria Carmela Iapalucci (UNIBO)

Powder-XRD, SC-XRD and ATR-FTIR, Cocrystals synthesis

**EDUCATION** 

"FRANCO MAGELLI" AWARD Jul 2021

Award for best thesis in the field of chemical engineering

2018 - 2020MASTER'S DEGREE IN INDUSTRIAL CHEMISTRY

> University of Bologna (UNIBO) – Italy Final grade: 110/110 cum laude

Jan 2018 - May 2018

**EXCHANGE PROGRAMME ERASMUS+ SCHOLARSHIP** 

University College Cork (UCC) - Ireland

Chosen modules: Analytical Chemistry, Forensic Science,

Materials Chemistry.

2015 - 2018**BACHELOR'S DEGREE IN INDUSTRIAL CHEMISTRY** 

University of Bologna (UNIBO) - Italy

Final grade: 104/110