



Lorenzo Cristiani

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Piazzale Aldo Moro 5, Chemistry department (VEC) Room 029, 00185, Roma, Italy

WORK EXPERIENCE

01/04/2022 – CURRENT – Rome, Italy

POSTDOC – CHEMISTRY DEPARTMENT "SAPIENZA" UNIVERSITY OF ROME

Hydrogen production and nitrogen recovery from wastewaters exploiting bioelectrochemical technologies

EDUCATION AND TRAINING

31/10/2018 – 19/04/2022 – Piazzale Aldo Moro 5, Roma, Italy

PHD IN INDUSTRIAL AND ENVIRONMENTAL CHEMICAL PROCESSES (XXXIV CYCLE) – University of Rome "Sapienza"

Development of bioelectrochemical systems for biomethane and biohydrogen production

Thesis: Bioelectrochemical systems for Hydrogen and methane production from wastewaters

Excellent |

<https://www.uniroma1.it/en/offerta-formativa/dottorato/2019/chemical-processes-industry-and-environment>

28/02/2021 – 23/09/2021 – 4 Allée Emile Monso, Toulouse, France

PHD VISITING PERIOD – INP Toulouse

Laboratoire de génie Chimique

Tutor: Dr. Benjamin Erable

Thesis: Bioelectrochemical systems for hydrogen production from wastewaters

<https://lgc.cnrs.fr/en/>

14/01/2016 – 17/10/2018 – Piazzale Aldo Moro, 5, Roma, Italy

MASTER DEGREE IN INDUSTRIAL CHEMISTRY – University of Rome Sapienza

Thesis

"Reduction of carbon dioxide to methane using wastewater in a bioelectrochemical system"
(12 month of laboratory experience and Supervision of the lab's work of two bachelor students)
Supervisor: Prof. Mauro Majone (mauro.majone@uniroma1.it)

Field(s) of study

- Chemistry

Thesis: Reduction of carbon dioxide to methane using wastewater in a bioelectrochemical system

107/110 | ECTS | 120 | <https://corsidilaurea.uniroma1.it/en/corso/2019/30445/home>

31/08/2012 – 13/01/2016 – Piazzale Aldo Moro, 5, Roma, Italy

BACHELOR DEGREE IN INDUSTRIAL CHEMISTRY – University of Rome Sapienza

Thesis

"Production and extraction of Polyhydroxyalkanoates from mixed microbial culture"
(3 month of laboratory experience)
Supervisor: Prof. Mauro Majone (mauro.majone@uniroma1.it)

Thesis: Production and extraction of Polyhydroxyalkanoates from mixed microbial culture

98/110 | ECTS | 180 | <https://corsidilaurea.uniroma1.it/en/corso/2019/30444/home>

31/08/2007 – 07/07/2011 – Elise-Aulinger-Straße 1, Munich, Germany

HIGH SCHOOL DIPLOMA – European School

www.esmunich.de

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
GERMAN	C1	C1	C1	C1	B2
ENGLISH	C2	C2	C2	C2	C1
FRENCH	A2	B1	A2	A2	B1
SPANISH	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Autotrophic Acetate Production under Hydrogenophilic and Bioelectrochemical Conditions with a Thermally Treated Mixed Culture

<https://doi.org/10.3390/membranes12020126> – 2022

L. Cristiani, J. Ferretti, M. Majone, M. Villano, M. Zeppilli
Membranes

Hydrogenophilic and bioelectrochemical production of acetate with a pure culture of acetobacterium woodii

Chemical Engineering Transactions

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85134365907&origin=resultslist&sort=plf-f> – 2022

J. Ferretti, M. Zeppilli, L. Cristiani, M. Majone, M. Villano

Acetogenic inoculum Selection for acetate production from waste biomasses via thermal shock treatment

Chemical Engineering Transactions

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85133932521&origin=resultslist&sort=plf-f> – 2022

M. Zeppilli, L. Cristiani, J. Ferretti, M. Majone, M. Villano

Reductive/oxidative sequential bioelectrochemical process for Perchloroethylene (PCE) removal: effect of the applied reductive potential and microbial community characterization

Journal of Environmental Chemical Engineering, Volume 9

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85096495163&origin=resultslist> – 2021

M. Zeppilli, B. Matturro, E. Dell'Armi, L. Cristiani, M. Petrangeli Papini, S. Rossetti, M. Majone

Potentiostatic vs galvanostatic operation of a Microbial Electrolysis Cell for ammonium recovery and biogas upgrading

Biochemical Engineering Journal, Volume 167

<https://www.sciencedirect.com/science/article/pii/S1369703X2030440X?via%3Dihub> – 2021

M. Zeppilli *, **L. Cristiani**, E. Dell'Armi, M. Villano

Carbon Dioxide Abatement and Biofilm Growth in MEC equipped with a packed bed adsorption column

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85109580642&origin=resultslist> – 2021

M. Zeppilli, **L. Cristiani**, M. Villano, M. Majone.

Chemical engineering transactions Volume 86

Electron Recycle Concept in a Microbial Electrolysis Cell for Biogas Upgrading

<http://dx.doi.org/10.1002/ceat.202100534> – 2021

L. Cristiani, J. Ferretti, M. Zeppilli.

Chemical Engineering & Technology

Role of the organic loading rate and the electrodes' potential control strategy on the performance of a micro pilot tubular microbial electrolysis cell for biogas upgrading

Chemical Engineering Journal Volume 426

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85113667289&origin=resultslist> – 2021

L. Cristiani, M. Zeppilli, M. Villano, M. Majone.

Ammonium Recovery and Biogas Upgrading in a Tubular Micro-Pilot Microbial Electrolysis Cell (MEC)

Molecules, Volume 25

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85086686426&origin=resultslist> – 2020

L. Cristiani *, M. Zeppilli, C. Porcu and M. Majone

Bioelectromethanogenesis reaction in a tubular Microbial Electrolysis Cell (MEC) for biogas upgrading

Renewable Energy, Volume 158

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85085771097&origin=resultslist> – 2019

M. Zeppilli *, **L. Cristiani** , E. Dell'Armi , M. Majone

Reductive/oxidative sequential bioelectrochemical process for perchloroethylene removal

Water, Volume 11

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85076717983&origin=resultslist> – 2019

M. Zeppilli *, E. Dell'Armi, **L. Cristiani**, M. Petrangeli Papini, M. Majone

Reviewer of 4 scientific papers

● HONOURS AND AWARDS

17/07/2021

Best Oral Award on Graduate forum – AP-ISMET
