

# Francesco Pio Abramo

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## ● ESPERIENZA LAVORATIVA

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05/2020 - 10/2020

**SCHOLARSHIP** EUROPEAN RESEARCH INSTITUTE OF CATALYSIS A.I.S.B.L

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01/2021 - 12/2023

**EDUCATIONAL TUTOR** UNIVERSITY OF MESSINA

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Supplementary teaching activities for students of the bachelor's and master's degree programs in chemistry. I also taught high school students in preparation for the International Chemistry Olympiads. The lessons consisted of both in-depth theory and written exercises. In addition, I was involved in coordinating post-high school orientation activities, including setting up teaching laboratories.

## ● ISTRUZIONE E FORMAZIONE

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11/2020 - 01/2024 Italia

**PH.D IN INDUSTRIAL CHEMISTRY** University of Messina

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Ph.D in Advanced Catalytic Processes for using Renewable Energy Sources (ACCESS).

My research is focused on the conversion of CO<sub>2</sub> into other value-added chemicals using innovative processes that utilize renewable energy (Power to X). Specifically, I have been involved in the improvement and implementation of an electrocatalyst for the production of organic acids (C2). In addition, my work has involved plasma and plasma catalysis for CO<sub>2</sub> splitting using a double dielectric and porous DBD reactor.

10/2022 - 04/2023 Eindhoven, Paesi Bassi

**VISITING PH.D.** Eindhoven University of Technology

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During my mobility period at Eindhoven University of Technology, I deepened my knowledge of plasma technologies. I was also involved in the development of a method for the deposition of catalytic thin films on porous electrodes.

This experience also allowed me to greatly improve my English, especially spoken English. I interacted with many new people and different cultures, which enriched my personal experience immeasurably.

2018 - 2020 Italia

**MASTER DEGREE IN CHEMISTRY** University of Messina

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The focus of the course was on industrial and environmental chemistry. Therefore, knowledge of the most important industrial chemical processes as well as catalysis and chemical-physical characterization techniques is provided.

**Voto finale** 110/110 cum laude

2018 - 2020 Italia

**BACHELOR DEGREE IN CHEMISTRY** University of Messina

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I did my curricular internship at CNR ITAE 'Nicola Giordano', where I worked on the synthesis of bimetallic electrocatalysts for a direct methanol fuel cell.

**Voto finale** 110/110 cum laude

Italia

**HIGH SCHOOL DIPLOMA** Liceo scientifico Galileo Galilei

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## ● COMPETENZE LINGUISTICHE

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Lingua madre: **ITALIAN**

Altre lingue:

	COMPRESIONE		ESPRESSIONE ORALE		SCRITTURA
	Ascolto	Lettura	Produzione orale	Interazione orale	
<b>ENGLISH</b>	B2	B2	B2	B2	B2

*Livelli: A1 e A2: Livello elementare B1 e B2: Livello intermedio C1 e C2: Livello avanzato*

## ● ULTERIORI INFORMAZIONI

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### PUBBLICAZIONI

**g-C<sub>3</sub>N<sub>4</sub> decorated TiO<sub>2</sub> nanotube ordered thin films as cathodic electrodes for the selective reduction of oxalic acid**

- 2021

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DOI :10.3303/CET2184007

**Electrocatalytic production of glycolic acid via oxalic acid reduction on titania debris supported on a TiO<sub>2</sub> nanotube array**

- 2021

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doi: <https://doi.org/10.1016/j.jechem.2021.12.034>

**Nanostructure-performance relationships in titania-only electrodes for the selective electrocatalytic hydrogenation of oxalic acid**

- 2024

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doi: [10.1016/j.jcat.2023.115277](https://doi.org/10.1016/j.jcat.2023.115277)

### PATENTE DI GUIDA

**Patente di guida:** AM

**Patente di guida:** B

### CONFERENZE E SEMINARI

2022 - Leamington Spa, UK

**UCRA2** The conference encompassed a number of new developments that are emerging across different research areas in which interdisciplinary collaborations between the classical catalysis science, chemical and materials engineering, physics, electrical engineering and energy technology play crucial role.

2023

**Europacat2023** 15<sup>th</sup> biannual European Congress on Catalysis, EuropaCat2023, of the European Federation of Catalysis Societies (EFCATS) in Prague on behalf on the Catalysis Societies of the Czech Republic, Hungary, Poland and Slovakia.

Oral communication entitled 'Insight the Ti nanotubes array nanostructure and its role on the electro reduction of CO<sub>2</sub>-derived oxalic acid'

### ONORIFICENZE E RICONOSCIMENTI

12/2020

**Winner of the 'Giorgio Squinzi' award for master's thesis - FEDERCHIMICA** Winner of the "Giorgio Squinzi" Prize for the Master's Thesis.

Awarded by FEDERCHIMICA - Italian Federation of Chemical Industries.

**Link** <https://www.federchimica.it/la-chimica-per/scuola/università/premio-giorgio-squinzi-per-tesi-di-laurea-magistrali>

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