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RESEARCH INTERESTS

- Carbon dioxide valorization
- Renewable fuels
- Electrochemistry
- Heterogeneous catalysis
- Inorganic synthesis
- Nanomaterials

SUMMARY

Research focused on CO₂ conversion into valuable compounds by means of electrochemistry. The ideal target products are hydrocarbons (ethylene, ethanol) that can be used as renewable carbon feedstock. In particular, the aim is to develop catalysts able to function at industrially relevant performances.

PUBLICATIONS

2023

“Acidic Electroreduction of CO₂ to Multi-Carbon Products with CO₂ Recovery and Recycling from Carbonate”

A. Perazio, C. E. Creissen, * J. G. Rivera de la Cruz, M. W. Schreiber, and M. Fontecave*, *ACS Energy Lett.* **2023**, 8, 2979–2985

“Tuning Selectivity of Acidic Carbon Dioxide Electrolysis via Surface Modification”

E. Vichou, A. Perazio, Y. Adjez, M. Gomez-Mingot*, M. W. Schreiber, C. M. Sanchez-Sanchez*, and M. Fontecave*, *Chem. Mater.* **2023**, 35, 7060–7068

2021

“Light-driven catalytic conversion of CO₂ with heterogenized molecular catalysts based on fourth period transition metals”

A. Perazio, G. Lowe, R. Gobetto, J. Bonin and M. Robert, *Coord. Chem. Rev.*, **2021**, 443, 214018

EDUCATIONAL BACKGROUND

2021 – 2023 PhD in Chemistry – *Collège de France*

2018 – 2020 Master's Degree in Chemistry – *University of Torino*

2015 – 2018 Bachelor's Degree in Chemistry and Chemical Technologies – *University of Torino*