

MOUCHFIQ Ahmed (3rd year PhD)

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Research activity (2017-current)

“Bio-inspired heteropolymetallic clusters for carbon dioxide reduction”

This research project aims to develop new catalytic systems for the reduction of CO₂ into energetically more valuable products. These systems will take inspiration from redox enzymes which efficiently catalyse this reaction in nature.

Research interests

- Inorganic and organometallic chemistry
- CO₂ Reduction
- Catalysis
- Electrochemistry
- Materials chemistry

Previous research activities

January-June 2017: 5 month internship in Professor Anna Proust’s group in Institut Parisien de Chimie Moléculaire, Université Pierre et Marie Curie, Paris, France.

Subject: Bifunctional hybrid molecular systems for CO₂ valorisation.

April-August 2016: 5 month internship in Professor Martyn Coles’ group in Victoria University of Wellington, Wellington, New Zealand.

Subject: Synthesis of Novel Low Coordinate Group 14 Complexes.

Publications

2020

A Bioinspired Molybdenum-Copper Molecular Catalyst for CO₂ Electroreduction.

Mouchfiq, A.; Todorova, T. K.; Dey, S.; Fontecave, M.; Mougél, V. *Chem. Sci.* **2020**, 11, 5503-5510. DOI: 10.1039/D0SC01045F.

2019

The “Metallo”-Diels–Alder Reactions: Examining the Metalloid Behavior of Germanimines.

M. J. Evans, M. D. Anker, **A. Mouchfiq**, M. Lein and J. R. Fulton, *Chem. Eur. J.*, **2019**. DOI: 10.1002/chem.201905693.