

**Sophia Ben Ahmed**  
**(1<sup>st</sup> year PhD Student)**

Address: Laboratoire de Chimie des Processus  
Biologiques, Collège de France,  
11 place Marcelin Berthelot, 75005 Paris, France  
Phone number: +33(0) 1 44 27 10 76  
E mail: sophia.ben-ahmed@college-de-france.fr



**RESEARCH INTERESTS**

Bioinspired and heterogenized molecular catalysts for CO<sub>2</sub> reduction

- Synthetic chemistry of metal complexes
- Electrocatalysis / Catalysis
- Homogeneous and heterogeneous catalysts
- Surface modification, electrochemical grafting

**EDUCATIONAL BACKGROUND**

- 2023-current    PhD Student  
                    Collège de France, Paris, France.
- 2022-2023      Master's Degree in organic chemistry  
                    Universidad Autónoma de Madrid, Madrid, Spain.
- 2019-2023      Chemical engineering degree, major in Molecular and Supramolecular Chemistry  
                    Ecole européenne de Chimie, Polymères et Matériaux (ECPM), Strasbourg, France.

**PREVIOUS RESEARCH ACTIVITY**

- Feb – July 2023   Organic chemistry department, Universidad Autónoma de Madrid, Spain.  
                          M2 Internship : *Synthesis of subporphyrazines as potential photosensitizers for photodynamic therapy and as fluorescence markers.*
- 2021-2022       AkzoNobel Coatings, Sassenheim, The Netherlands  
                          Gap year internship : *Formulation of isocyanate-free waterborne performance coatings.*
- Apr-Aug 2021    Servier Research Institute of Medicinal Chemistry SRIMC, Budapest, Hungary.  
                          M1 Internship : *Synthesis of new chiral nucleophilic heterocyclic carbenes (NHC) and their complexes for catalytic applications.*

## SUMMARY

Sophia began her higher education with two years of preparatory classes for engineering schools in the physics and chemistry section, followed by three years of engineering school at the European School of Chemistry, Polymers and Material science in Strasbourg. She specialized in molecular and supramolecular chemistry during her last year of school within a double degree program in the organic chemistry master's degree at the Universidad Autónoma of Madrid. Within the Laboratory of Chemistry of Biological Processes of the Collège de France, she began in October 2023 a PhD on the development of bioinspired and heterogenized molecular catalysts for the electro- or photo-reduction of carbon dioxide.

## PUBLICATIONS

### 2022

- "Enantioselective Cyclopropanation Catalyzed by Gold(I)-Carbene Complexes", Z. Szabo, S. Ben Ahmed, Z. Nagy, A. Paczal, A. Kotschy, **Molecules**, 2022, 27(18), 5805.