

CURRICULUM VITAE

Family name, First name: **ORIO, Maylis**

Date of birth: February the 25th 1981 (Age: 43)

Nationality: French

• EDUCATION

2014 HDR: Accreditation to supervise researchers, University of Lille 1, *France*

2007 PhD in Molecular, Structural and Physical Chemistry, University Grenoble 1, *France* (Dr. J.-M. Mousesca)

• CURRENT POSITIONS

2010-today CNRS Researcher, iSm2, Aix-Marseille University, *France*

• PREVIOUS POSITIONS

2009-2010 Postdoctoral position at Department of Molecular Chemistry, Grenoble, *France* (Prof. H. Jamet)

2007-2009 Postdoctoral position at Max-Planck Institute, Mulheim-an-der-Ruhr, *Germany* (Prof. F. Neese)

• FELLOSHIPS

2013, 2018, 2022 CNRS bonus of excellence.

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2010-today 12 PhDs (9 defended), 4 Postdocs, 1 research engineer, 1 industrial Master, 4 Masters, 8 undergraduates, 5 engineering students, 3 internships of PhD students

• MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2024-today Deputy director of the Themosia GDR- elected

2024-today Innovation referent of the iSm2 lab

2023-today Board member of Solar Fuel GDR

2022-today Operational manager of the IM2NP EPR platform of Infranalytics (FR CNRS 2054).

2021-today Treasurer of the French EPR society (ARPE) - elected.

2021-today Communication manager of the IM2NP EPR platform of Infranalytics (FR CNRS 2054)

• CAREER RECORD

121 Scientific publications in high-impact peer reviewed international journals, including: *Nat. Chem.* (1), *Nat. Mat.* (1), *J. Am. Chem. Soc.* (2), *Angew. Chem.* (6), *Chem. Commun.* (9), *Chem. Eur. J.* (13)

h-index: 36 - i10 : 76 - Σ Citation : 4632

40 oral contributions - 17 invited talks and 15 invited seminars - 27 poster communications

PI in 9 projects (2 ANR JCJC-PRCI, 1 ANRT, 3 PHC, 2 PICS, 2 Region), Co-PI in 1 project (ANR PRCI).

• SELECTED PUBLICATIONS

Expertise in quantum bioinorganic chemistry and electron paramagnetic resonance spectroscopic techniques. Research focused on experimental and theoretical characterization of molecular catalysts for small molecule activation with particular interest for electrochemical or photochemical hydrogen evolution.

Use of quantum chemical tools to better understand reaction mechanisms; predict the catalytic performance of systems and develop new synthetic targets.

[1] M. Papadakis, J. Mehrez, I. Wehrung, L. Delmotte, M. Giorgi, R. Hardré, **M. Orio***
"Stereochemical tailoring of nickel-based electrocatalysts for hydrogen evolution reaction."
Chem. Cat. Chem., 2024, DOI: 10.1002/cctc.202400426.

[2] W. Wang, L.-M. Chamoreau, G. Izzet, A. Proust, M. Orio*, S. Blanchard. Visible light photoaccumulation of 3 electrons by the hybrid $[P_2V_3W_{15}O_{59}(\text{trisDPA}\{\text{Cu}(\text{OAc})\})]^{5-}$ polyoxometalate and its use to photocatalytically generate CF_3 radical. *J. Am. Chem. Soc.*, 2023, 145, 12136-12147

[3] R. J. Gómez-Piñeiro, M. Drosou, C. Decroos, A. J. Simaan, D.A. Pantazis, M. Orio*. Decoding the ambiguous EPR signal in PIAA10 LPMO enzyme: A computational investigation. *Inorg. Chem.*, 2022, 61, 8022–8035.

[4] M. Orio*, D. A. Pantazis. Successes, challenges and opportunities for quantum chemistry in understanding metalloenzymes for solar fuel research. *Chem. Comm.*, 2021, 57, 3952-3974.

[5] A. C. García-Álvarez, S. Gamboa-Ramírez, D. Martínez-Otero, M. Orio*, I. Castillo. Enhanced oxygen evolution electrocatalysis by self-assembled nickel cubanes with CaCl_2 as electrolyte. *Chem. Comm.*, 2021, 57, 8608-8611.