

EUROPASS CURRICULUM VITAE

PERSONAL INFORMATION

Name: Javier Martí-Rujas

Nationality: Spanish

Place of birth: Tarragona, Spain

Languages: Catalan (mother tongue), Spanish, Italian, English

WORK EXPERIENCE

2018 – Present | Associate Professor | Politecnico di Milano, Italy

2017 – 2018 | Adjunct Lecturer | Universitat Autònoma de Barcelona, Spain

2012 – 2017 | Principal Investigator | Italian Institute of Technology, Milan, Italy

2010 – 2012 | Senior Postdoctoral Researcher | Italian Institute of Technology, Milan, Italy

2008 – 2010 | JSPS Postdoctoral Fellow | University of Tokyo, Japan

2007 – 2008 | Postdoctoral Researcher | Cardiff University, UK

2006 – 2007 | Postdoctoral Researcher | Georgetown University, USA

EDUCATION AND TRAINING

2005 | PhD in Solid-State Chemistry | Cardiff University, United Kingdom

RESEARCH EXPERTISE

Solid-state chemistry, metal-organic frameworks (MOFs), metal-organic cages (MOCs)

Single-crystal and powder X-ray diffraction, ab initio XRPD

Synchrotron radiation experiments (Elettra, ALBA, Spring-8, Photon Factory, PAL)

Crystal engineering, polymorphism, solid-state reactivity

RESEARCH FUNDING

Tech Euro Foundation (TEF) PhD scholarship for 3 years awarded 2025.

Horizon MSCA Postdoctoral Fellowship awarded to Dr Tommaso Nicolini (2021), approx. €188,000 – Principal Investigator and Host institution.

PUBLICATIONS

Author of 80+ peer-reviewed scientific publications in high-impact journals including JACS, Angewandte Chemie, Chemical Communications, Dalton Transactions, Crystal Growth & Design.

Last 10 publications:

1. S. Ma, A. Famulari*, J. Martí-Rujas*

Experimental X-ray and DFT Structural Analyses of M12L8 Poly-[n]-catenanes Using exo-Tridentate Ligands.

Inorg. Chem. 2022, 61, 10863–10871.

2. J. Martí-Rujas*

Connecting metal-organic cages (MOCs) for CO₂ remediation.

Mat. Adv., 2023, 4, 4333-4343.

3. J. Martí-Rujas*, S. Elli, A. Zanotti, A. Famulari, F. Castiglione.

Molecular recognition of aromatics in spherical nanocages.

Chem. Eur. J. 2023, 29, e202302025.

"Hot Article"

4. J. Martí-Rujas*, S. Elli, A. Famulari,

Kinetic trapping of 2,4,6-tris(4-pyridyl)benzene and ZnI₂ into M12L8 poly-[n]-catenanes using solution and solid-state processes.

Sci. Rep. 2023, 13, 5605-5616.

5. J. Martí-Rujas*, A. Famulari. (Minireview)

Polycatenanes formed of self-assembled metal-organic cages.

Angew. Chem. Int. Ed., 2024, 63, e202407626.

6. S. Elli, A. Famulari, J. Martí-Rujas* (Invited for Special Issue)

Paracetamol inclusion in mechanically interlocked nanocages.

ChemPlusChem, 2024, 89, e202400332.

7. J. Martí-Rujas* (Invited Perspective)

Mechanical interlocking of metal organic cages.

Commun. Chem., 2025, 8, 92.

8. J. Martí-Rujas*, S. Elli, A. Famulari

In situ X-ray study of breathing-like effect in interlocked metal-organic cages.

Dalton Trans., 2025, 54, 10761-10768.

9. S. Elli, A. Famulari, J. Martí-Rujas* (Invited for Special Issue)

Nitromethane gas absorption in interlocked icosahedral $M_{12}L_8$ nanocages

Polyhedron, 2026, 284, 117908.

10. S. Elli, M. Nosari, A. Famulari, J. Martí-Rujas* (Invited for Special Issue)

Solid-State Synthesis, X-ray Structure, and Guest Inclusion in Octahedral M_6L_4 Cages Self-Assembled by Tris-pyridyl-benzene (TPB)

Inorg. Chem. 2026, 65, 3, 1920–1929.