

Name: Rosa Diego Creixenti
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Education:

2022- 2023 Postdoctoral Researcher. Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg-University Mainz (JGU), Mainz, Germany.

2017- 2022 International PhD in Nanoscience (cum laude). Group of Magnetism and Functional Molecules (GMMF), Department of Inorganic and Organic Chemistry, University of Barcelona (UB), Spain.

2020 PhD Internship at Brooker's Brunch. Group of Transition Metal and Macrocyclic Chemistry, Chemistry Department of the University of Otago, Dunedin, New Zealand.

2015-2016 Master's Degree in Organic Chemistry. Group of Synthetic Methodology Applied to Bioactive Compounds (SMBioCom), Department of Inorganic and Organic Chemistry, UB, Barcelona, Spain.

2015 Exchange student. Master's Programme subject: Organic synthesis. Biomedicinsk centrum (BMC), Department of Chemistry, Organic Chemistry, Uppsala University, Sweden.

2010-2015 Bachelor's Degree in Chemistry. Faculty of Chemistry, UB, Barcelona, Spain.

Research positions:

2022 Postdoctoral Researcher at the Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg-Universität Mainz (JGU), Mainz, Germany.

2016 Research assistant. Research assessment and development of drugs with potential anticancer activity for two months (July-September) at the SMBioCom Group. Department of Organic Chemistry, Faculty of Chemistry, UB, Barcelona, Spain. Project signed for Bosch i Gimpera Foundation and the pharmaceutical company, Esteve Química S.A.

Research grants:

2022 ADAGIO (Advanced Manufacturing Research Fellowship Programme). MSCA-COFUND-2020 for incorporating postdoctoral talent in the area of Advance Manufacturing.

2019 PhD Mobility Fellowship to spend 6 months at the Group of Transition Metal and Macrocyclic Chemistry, University of Otago, Dunedin, New Zealand. Spanish Ministry of Economy, Industry and competitiveness (BES-2016-077874).

2017 FPI PhD Fellowship. The Spanish Ministry of Economy, Industry and competitiveness (BES-2016-077874).

2015 Erasmus Mobility Grant during the last year of the B.Sc Degree (January 19th - June 5th) at the Biomedicinsk Centrum (BMC) and Sascha Ott's Group at Ångström Laboratory, Department of Organic Chemistry, Faculty of Chemistry, Uppsala University, Uppsala, Sweden.

Awards:

2019 II Tesimarató Award (Catalan version of 3 Minute Thesis), Linguistic Dynamization Commission, Faculty of Chemistry, UB, Barcelona, Spain.

2018 Three-minute thesis (3MT) Award, Coimbra Group and Catalan Foundation for Research and Innovation (FCRi), La UB divulga, UB, Barcelona, Spain.

2018 Best Oral Communication Award in the Synthetic methodology of organic and inorganic compounds Symposium, Tenth meeting of Young Researchers of the Catalan Countries, Catalan Society of Chemistry (SCQ), Barcelona, Spain

2015 Summer Fellowship at SMBioCom Group as an internal student for accomplishing the synthesis of anticancer agent. Department of Organic Chemistry, UB, Spain.

Publications in peer-reviewed journals:

8. L. A. Barrios, **R. Diego**, M. Darawsheh, J. I. Martínez, O. Roubeau, G. Aromí. "A Ferric Guest Inside a spin crossover ferrous helicate." *Chem. Comm.*, 2022, 58, 5375-5378. DOI: doi.org/10.1039/D2CC00928E

7. D.Y. Aleshin, **R. Diego**, L. A. Barrios, Y. V. Nelyubina, G. Aromí, V. V. Novikov. "Unravelling of a [HS-LS] ↔ [LS-HS] Equilibrium in Spin-Crossover Iron (II) Dinuclear Helicates Using Paramagnetic NMR." *Angew. Chem. Int. Ed.*, 61, 2021, p. e202113010. DOI: doi.org/10.1002/anie.202110310

6. **R. Diego**, O. Roubeau, G. Aromí. "Variations to Spin Crossover in [FexZn(1-x)(Me1,3bpp)2(ClO4)2] molecular alloys examined by Magnetometry and Single Crystal X-Ray Diffraction." *Chem. Sq.*, 2021, 5, 1. DOI: doi.org/10.28954/2021.csq.09.001

5. **R. Diego**, M. Darawsheh, L. A. Barrios, A. Sadurní, J. García, P. Lloyd-Williams, S. J. Teat, O. Roubeau, D. Aguilà, G. Aromí. "Designed asymmetric coordination helicates with bis-β-diketone ligands." *Dalton. Trans.*, 2019, 48, 16844-16847. DOI: doi.org/10.1039/C9DT03398J

4. **R. Diego**, A. Pavlov, M. Darawsheh, D. Aleshin, J. Nehr Korn, Y. Nelyubina, O. Roubeau, V. Novikov, G. Aromí, "Coordination [CoII2] and [CoIIZnII] Helicates Showing Slow Magnetic Relaxation." *Inorg. Chem.*, 2019, 58, 15, 9562-9566. DOI: doi.org/10.1021/acs.inorgchem.9b01334

3. C. Bartual-Murgui, S. Vela, M. Darawsheh, **R. Diego**, S. J. Teat, O. Roubeau, G. Aromí, "Exploració d'efectes estèrics de substituents en lligands a l'spin crossover de complexos de Fe(II)." *Revista de la Societat Catalana de Química [Recurs electrònic]*, 2018, 17, 96-106. DOI: 10.2436/20.2003.01.100

2. C. Bartual-Murgui, **R. Diego**, S. Vela, S. J. Teat, O. Roubeau, G. Aromí, "A Spin-Crossover Molecular Material Describing Four Distinct Thermal Pathways." *Inorg. Chem.*, 2018, 57, 11019-11026. DOI: doi.org/10.1021/acs.inorgchem.8b01625

1. C. Bartual-Murgui, S. Vela, M. Darawsheh, **R. Diego**, S. J. Teat, O. Roubeau, G. Aromí, "A probe of steric substituent effects on the spin crossover of Fe (II) complexes." *Inorg. Chem. Front.*, 2017, 4, 1374-1383. DOI: doi.org/10.1039/C7QI00347A

Other Academic publications:

Doctoral Thesis: Design, Synthesis and Study of Coordination Complexes with Spin Crossover or Single-Molecule Magnet Properties, **R. Diego**, Universitat de Barcelona, Barcelona

Conference & Workshop presentations:

Participation in 12 conferences and workshops (4 with an international character such as ECMM, ICMM, EuChemS, EsMolNa) of which 4 with an oral contribution and 1 as invited speaker, and 6 posters.

Participation in 8 scientific outreach activities (11th Arbeitskreissymposium, BCNspiracy Talks "TED talk-like conference", BEERspiracy, 10ALAMENOS9 Festival of Nanoscience, First Training Day in Nano-divulgateion, Welcome day for the new students accessing to the degree of chemistry, II Tesimarató de Química "Catalan version of Three-Minute Thesis" and Three-Minute Thesis) and Mentor at Inspira STEAM.

Research Groups:

- Research Group for Molecular Materials & Magnetism - Dr. Hab. Rodolphe Clérac: <https://www.crpp.cnrs.fr/en/research-teams/team-m3/>
- Research Group of Prof. Dr. Eva Rentschler (AK- Rentschler): <https://www.ak-rentschler.chemie.uni-mainz.de/>
- Laboratory of Molecular Design – Prof. Guillem Aromí Bedmar: <https://www.labmoldesign-ub.com/>
- Research group for Synthetic Methodology Applied to Bioactive Products (SMBioCom) – Prof. Jordi García Gómez: http://www.qo.ub.edu/grups/SMBioCom/es/personal_personal.html

Teaching experience:

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| 2022-2023 | Laboratory assistant for Functional Molecular Material (FunMolMat) laboratory (40h) Master's in Chemistry Subject- At Johannes Gutenberg-Universität Mainz. |
| 2020-2021 | Laboratory assistant for Chemistry Students in Basic Inorganic Chemistry laboratory. Bachelor's in Chemistry Subject- At University of Barcelona, Spain. |
| 2019-2020 | Laboratory assistant for Chemistry Students in Basic Inorganic Chemistry laboratory. Bachelor's in Chemistry Subject- At University of Barcelona, Spain. |

- 2018-2019 Laboratory assistant for Chemistry Students in Basic Inorganic Chemistry laboratory. Bachelor's in Chemistry Subject- At University of Barcelona, Spain.
- 2017-2018 Laboratory assistant for Chemical Engineering Students in Chemistry Experimentation. Bachelor's in Chemical Engineering Subject - At University of Barcelona, Spain.
- Laboratory assistant for Chemical Engineering Students in Basic Laboratory. Bachelor's in Chemical Engineering Subject - At University of Barcelona, Spain.
- 2016-2017 Laboratory assistant for Chemistry Students in Basic Inorganic Chemistry laboratory. Bachelor's in Chemistry Subject- At University of Barcelona, Spain.

Language & IT Skills: Catalan (native), Spanish (Native), English (Advanced)

Keywords: Coordination chemistry, Inorganic chemistry, Redox, Organic Radicals, Post-Functionalization, Molecular Magnetism, Molecular Materials, Magnetic Materials, Multifunctional Materials, Material Science, Functional Molecules, Additive Manufacturing.