

CURRICULUM VITAE

Personal Information

NAME AND SURNAME Valeria D'Annibale

Studies

PERIOD **01/11/2021 – 31/10/2024**

POSITION PhD student

DESCRIPTION PhD in Mathematical Model for Engineering, Electromagnetism and Nanosciences – Curriculum Material Science

INSTITUTION Sapienza, University of Rome

DEPARTMENT Department of SBAI (Basic and Applied Sciences for Engineering) and Department of Chemistry

TITLE Synthesis, physico-chemical characterization and theoretical studies on the stereospecific self-assembly of new amphiphilic extrinsically chiral porphyrin derivatives

DATE **20/01/2020**

DEGREE Master Degree

CATHEGORY LM – 54 (Chemical Sciences, Physical-Chemistry field)

FINAL MARK 110/110 cum laude

UNIVERSITY Sapienza, University of Rome

DATE **11/05/2017**

DEGREE Bachelor Degree

CATHEGORY L– 27 (Chemical Sciences)

FINAL MARK 110/110

UNIVERSITY Sapienza, University of Rome

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Experiences

PERIOD **28/01/2024 – 24/06/2024**

POSITION PhD visiting student

DESCRIPTION Research activity on Porphyrins aggregation and their interactions with silica nano-helices

INSTITUTION Bordeaux University and CNRS (Centre National de la Recherche Scientifique)

DEPARTMENT IECB – Institut Européen de Chimie et Biologie

PERIOD **02/05/2023 – 24/07/2023**

POSITION PhD visiting student

DESCRIPTION Research activity on the aggregation of Porphyrins and Bile Salts in DES (Deep Eutectic Solvents)

INSTITUTION Lund University

DEPARTMENT Physical Chemistry Division – Department of Chemistry

PERIOD **01/02/2021 – 31/01/2022**

POSITION Research fellow

DESCRIPTION Theoretical study of the interactions between electromagnetic fields and biological systems, within the PRIN project ‘Mirabilis’ (*Multilevel Methodologies to Investigate Interactions between Radiofrequencies and Biological Systems*)

INSTITUTION Sapienza, University of Rome

DEPARTMENT DIET – Department of Engineering of Information, Electronics and Telecommunication

PERIOD **01/03/2020 – 30/11/2020**

POSITION Tornosubito 2019 project (Regione Lazio) - work experience

DESCRIPTION Research activity about DSCs, Dye-sensitized Solar Cells, with the aim of designing and studying ionic liquid based photoelectrochemical devices with high efficiency

INSTITUTION Newcastle University (March-August 2020) and Sapienza University of Rome (September-November 2020)

DEPARTMENT SNES – School of Natural and Environmental Sciences (Newcastle University) and Department of Chemistry (Sapienza)

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Publications

D'Annibale V., Piccirillo L., Pacini B., Sennato S., Marconi C., Del Giudice A., di Gregorio M. C., Schillén K., D'Abramo M., D'Annibale A., Monti D., Galantini L., *A spectroscopic and structural study on the solvent-promoted stereospecific self-assembly of new Porphyrin-Bile Salt conjugates*, **2024**, 700, 134507.

D'Annibale V., Chen C. G., Bonomo M., Dini D., D'Abramo M., *P1 Push-Pull Dye as a Case Study in QM/MM Theoretical Characterization for Dye-sensitized Solar Cell Organic Chromophores*, *ChemistrySelect*, **2023**, 8, e202204904.

De Sciscio M. L., D'Annibale V., D'Abramo, M., *Theoretical Evaluation of Sulfur-Based Reactions as a Model for Biological Antioxidant Defense*, **2022**, *Int. J. Mol. Sci.*, 23, 14515.

D'Annibale V., Fracassi D., Marracino P., D'Inzeo G., D'Abramo M., *Effects of Environmental and Electric Perturbations on the pKa of Thioredoxin Cysteine 35: A Computational Study*, **2022**, *Molecules*, 27, 6454.

D'Annibale V., Nardi A. N., Amadei A., D'Abramo M., *Theoretical characterization of the reduction potentials of nucleic acids in solution*, **2021**, *J. Chem. Theory. Comput.*, 17, 1301-1307.

Potts N. T. Z., Sloboda T., Wachtler M., Wahyuono R. A., D'Annibale V., Dietzek B., Cappel U. B., Gibson E., *Probing the dye-semiconductor interface in dye-sensitized NiO solar cells*, **2020**, *J. Chem. Phys.*, 153, 184704.

Other experiences

Abilitazione classe di concorso A028 – Concorso STEM 2021;

Tutoring activity in *General and Inorganic Chemistry* at Faculty of Civil and Industrial Engineering (Sapienza), academic year 2022/2023;

Tutoring activity in *General and Inorganic Chemistry* at Faculty of Mathematical, Physical, and Natural Sciences (Sapienza), academic year 2023/2024.

PARTICIPATION IN CONFERENCES:

- NanoInnovation, Rome (09-13/09/2024) – oral presentation;
- ECIS 2024, Copenhagen (01-06/09/2024) – oral presentation;
- Italian Soft Days (iSoDays) 2024, Firenze (4-5/07/2024) – poster;
- SYNC 2024, Rome (24-28/06/2024) – oral presentation;
- NanoInnovation, Rome (18-22/09/2023) – oral presentation;
- ECIS 2023, Naples (03-08/09/2023) – poster;
- Chirality, Rome (24-27/07/2023) – oral presentation;
- VII congresso della Chimica Teorica e Computazionale 2022, Modena (21-23/09/2022) – poster;
- GEI 2022, Orvieto (11-15/09/2022) – poster;
- SYNC 2022, Rome (20-23/06/2022) – poster.