

# GIORGIO CAPOCASA

## Curriculum Vitae

Roma  
28<sup>st</sup> March 2025

### Part I – General Information

|                  |                                                                                           |
|------------------|-------------------------------------------------------------------------------------------|
| Full Name        | Giorgio Capocasa                                                                          |
| Spoken Languages | Italian (native), English (advanced), Spanish (intermediate), Catalan (basic)             |
| ORCID            | <a href="https://orcid.org/0000-0002-9725-2727">https://orcid.org/0000-0002-9725-2727</a> |

### Part II – Education

| Type                  | Year | Institution                                                      | Notes (Degree, Experience,...)                                                                                                                                                                                                                                                                          |
|-----------------------|------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High school diploma   | 2012 | Liceo Scientifico Statale “Evangelista Torricelli”, Rome (Italy) | <b>High school diploma</b> (scientific curriculum) with final note of 100/100                                                                                                                                                                                                                           |
| University graduation | 2015 | “La Sapienza” University                                         | <b>Bachelor’s degree in Chemistry</b> ( <i>Laurea Triennale</i> ). Full Marks with Merit. (110/110 e Lode).<br>Thesis title: <i>Sintesi parziale di un legante multitopico</i> .<br>Supervisor: Prof. Stefano Di Stefano.                                                                               |
| Post-graduate studies | 2017 | “La Sapienza” University                                         | <b>Master’s degree in Chemistry</b> ( <i>Laurea Magistrale</i> ). Full Marks with Merit. (110/110 e Lode)<br>Thesis title: <i>Un complesso imminico del ferro, generato in situ da precursori commerciali, catalizza l’ossidazione di legami C-H aromatici</i><br>Supervisor: Prof. Stefano Di Stefano. |
| PhD                   | 2021 | “La Sapienza” University                                         | <b>PhD in Chemical Sciences</b> ( <i>Scienze Chimiche</i> ). Score: Excellent ( <i>Ottimo</i> )<br>Thesis title:<br><i>A supramolecular approach to hydrocarbon functionalization</i><br>Supervisor: Prof. Stefano Di Stefano.                                                                          |
| Licensure             | 2020 | “Ordine dei Chimici e dei Fisici del Lazio”                      | II session -year 2020 ( <i>Esame di Stato</i> )                                                                                                                                                                                                                                                         |

### Part III – Appointments

#### IIIA – Academic Appointments

| Start | End  | Institution                                                               | Position                                                                                                                                                                                                                                                                                                                    |
|-------|------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018  | 2018 | Liceo Scientifico Statale<br>“Evangelista Torricelli”, Rome<br>(Italy)    | <b>Teacher.</b> Courses of Physics and Chemistry (reparation classes)                                                                                                                                                                                                                                                       |
| 2018  | 2020 | “La Sapienza”, Chemistry<br>Department, Rome (Italy)                      | <b>Teacher’s Assistant.</b> Tutoring for the courses of General and Inorganic Chemistry ( <i>Chimica Generale e Inorganica</i> ) and Analytical Chemistry ( <i>Chimica Analitica I</i> ) for the undergraduate students enrolled in the Chemistry Course ( <i>CdL Chimica Triennale</i> ).                                  |
| 2018  | 2020 | “La Sapienza”, Chemistry<br>Department, Rome (Italy)                      | <b>Teacher’s Assistant.</b> Held three seminars (one per year) on C-H bond functionalization and molecular machines as part of the course of Physical Organic Chemistry ( <i>Chimica Organica IV</i> ) for the master students enrolled in the Chemistry Course ( <i>CdL Chimica</i> )<br>Teacher: Prof. Stefano Di Stefano |
| 2021  | 2022 | “Universitat de Girona”, Costas<br>Group, Girona (Spain)                  | <b>Post-doc researcher</b> (PDI)<br>“ERC-AdcG 883922, <i>Enantioselective C-H Oxidation Guided by Rational Catalyst Design</i> ”                                                                                                                                                                                            |
| 2023  | 2023 | “La Sapienza”, Chemistry<br>Department, Rome (Italy)                      | <b>Teacher’s Assistant.</b> Held a seminar on dissipative systems as part of the course of Physical Organic Chemistry ( <i>Chimica Organica IV</i> ) for the master students enrolled in the Chemistry Course ( <i>CdL Chimica</i> )<br>Teacher: Prof. Stefano Di Stefano                                                   |
| 2023  | 2024 | “La Sapienza”, Chemistry<br>Department, Rome (Italy)                      | <b>Teacher.</b> Course of Supramolecular Chemistry for PhD Students                                                                                                                                                                                                                                                         |
| 2023  | 2024 | “La Sapienza”, Chemistry<br>Department, Di Stefano Group,<br>Rome (Italy) | <b>Post-doc researcher</b> (Assegnista di Ricerca). Research project:<br>“ <i>Modulazione nel tempo del potenziale di coppie redox nel mediante l’impiego di fuel chimici decarbossilativi</i> ”                                                                                                                            |

|      |      |                                                                     |                                                                                                                                                       |
|------|------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024 | 2025 | “La Sapienza”, Chemistry Department, Di Stefano Group, Rome (Italy) | <b>Post-doc researcher</b> (Assegnista di Ricerca). Research Project: “Chemically-driven Autonomous molecular Machines and Other Dissipative Systems” |
|------|------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

### IIIB – Other Appointments

| Start      | End       | Institution                                                      | Position                                                                                                                                                                                                                                                                          |
|------------|-----------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| April 2019 | July 2019 | “Universitat de Girona”, Costas Group, Girona (Spain)            | <b>Visiting Researcher</b> at Costas Group (while a PhD student).                                                                                                                                                                                                                 |
| 2019       | 2019      | ESRF – European Synchrotron Research Facility, Grenoble (France) | <b>Visiting Researcher</b> (14 shifts).                                                                                                                                                                                                                                           |
| June 2021  | June 2021 | ESRF – European Synchrotron Research Facility, Grenoble (France) | <b>Visiting Researcher</b> (14 shifts).                                                                                                                                                                                                                                           |
| 2022       | 2022      | “Universitat de Girona”, Costas Group, Girona (Spain)            | <b>Member of the graduation examining board</b>                                                                                                                                                                                                                                   |
| 2023       | 2024      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Subject expert (<i>Culture della Materia</i>) and member of the examining board</b> for the courses of <i>Chimica Organica II</i> , <i>Chimica Organica III</i> (undergraduate courses) as well as <i>Chimica Organica IV</i> and <i>Chimica Organica V</i> (master’s courses) |

### IIIC – Scientific communication (*Terza Missione*)

| Year | Institution                                       | Position                                                                                                                                                      |
|------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2023 | “La Sapienza”, Chemistry Department, Rome (Italy) | <b>Speaker at Christmas Seminars</b> organized by La Sapienza with a talk on Molecular Machines for high-school students (“ <i>Seminari di Natale 2023</i> ”) |
| 2024 | “La Sapienza”, Chemistry Department, Rome (Italy) | <b>Scientific Communicator</b> (during 2024 European Researchers' Night)                                                                                      |

## Part IV – Teaching experience

| Year      | Institution                                                      | Lecture/Course                                                                                                                             |
|-----------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 2018      | Liceo Scientifico Statale “Evangelista Torricelli”, Rome (Italy) | <b>Reparation Classes</b> (summer classes) of Physics and Chemistry                                                                        |
| 2018      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Teacher’s Assistant</b> for the course of “Chimica Generale ed Inorganica” ( <i>Tutoraggi</i> )                                         |
| 2020      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Teacher’s Assistant</b> for the course of “Analytical Chemistry” ( <i>Tutoraggi</i> )                                                   |
| 2018      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Speaker at Seminar</b> on C-H bond functionalization as part of the “Chimica Organica IV” course (Prof. Di Stefano)                     |
| 2019      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Speaker at Seminar</b> on molecular machines as part of the “Chimica Organica IV” course (Prof. Di Stefano)                             |
| 2020      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Speaker at Seminar</b> on C-H bond oxidation with supramolecular systems as part of the “Chimica Organica IV” course (Prof. Di Stefano) |
| 2023      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Speaker at Seminar</b> on dissipative systems as part of the “Chimica Organica IV” course (Prof. Di Stefano)                            |
| 2023-2024 | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Teacher’s Assistant</b> for the course of “Chimica Organica II” ( <i>Esercitazioni in Aula</i> )                                        |
| 2023      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Teacher of Supramolecular Chemistry</b> for (PhD Students)                                                                              |
| 2024      | “La Sapienza”, Chemistry Department, Rome (Italy)                | <b>Teacher of Supramolecular Chemistry</b> for (PhD Students)                                                                              |

## Part V - Society memberships, Awards and Honors

| Year      | Title                                                                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2017      | After the submission of a written paper, the applicant was selected for a week of seminars sponsored by Roche with 100 international university students of Science and Liberal Arts. |
| 2017      | Winner of PhD fellowship (ID 11089) at “Sapienza” University of Rome. PI: Prof. Stefano Di Stefano, 63.037 EUR. (2017-2021).                                                          |
| 2019      | Member of SCI – Società Chimica Italiana (Italian Chemical Society)                                                                                                                   |
| 2023      | Member of SCI – Società Chimica Italiana (Italian Chemical Society)                                                                                                                   |
| 2019-2020 | Associate of “Istituto CNR per i Sistemi Biologici” (ISB-CNR).                                                                                                                        |
| 2024      | Associate of “Istituto CNR per i Sistemi Biologici” (ISB-CNR).                                                                                                                        |

**Part VI - Funding Information [grants as PI-principal investigator or I-investigator]**

| Year | Title                                                                                                                           | Program                                                                                                | Grant value   |
|------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------|
| 2018 | Sviluppo di chemical fuel per il movimento avanti-indietro di macchine molecolari che sfruttano cicli Cu(II)-Cu(I)-Cu(II)       | Avvio alla Ricerca Tipo I<br>AR11816427E041CD<br>(Sapienza); <b>PI</b>                                 | 1.000 EUR     |
| 2019 | Site-selective remote late-functionalization of complex biomolecules                                                            | Avvio alla Ricerca Tipo I<br>(Sapienza)<br>AR11916B51C4C8F7; <b>PI</b>                                 | 1.000 EUR     |
| 2020 | Macchine Molecolari Basate sulla Struttura Calix[4]arenica                                                                      | Progetti Medi<br>RM12017293222D84; <b>I</b><br>(proponent: <b>Prof. Stefano Di Stefano</b> , Sapienza) | 15.000 EUR    |
| 2022 | Enantioselective C-H Oxidation Guided by Rational Catalyst                                                                      | ERC-AdcG 883922; <b>I</b><br>(proponent: <b>Prof. Miquel Costas</b> , Universitat de Girona)           | 2.500.000 EUR |
| 2023 | Celle elettrochimiche dissipative per la generazione di segnali elettrici transienti                                            | Avvio alla Ricerca Tipo 2<br>AR223188B043A45D<br>(Sapienza); <b>PI</b>                                 | 2.200 EUR     |
| 2023 | MOF-MTM: accelerating the development of Metal-Organic Frameworks for the direct and sustainable Methane To Methanol conversion | Progetti Grandi<br>RG123188B163C1B6<br>(proponent: <b>Prof. Paola D'Angelo</b> , Sapienza); <b>I</b>   | 66.220 EUR    |

## Part VII – Research Activities

| Keywords                   | Brief Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Organic Chemistry          | <b>Enantioselective C-H bond oxidation with first-row transition metal complexes.</b> This research line focuses on the development of regio-, chemo-, and enantioselective C-H bond oxidation protocols employing Fe and Mn complexes as the catalysts and environmentally benign species such as hydrogen peroxide as the terminal oxidants. Rational ligand design allows for tuning the reaction's regio-, chemo-, and enantioselectivity. Crucially, oxidized products (alcohols, ketones, or lactones) can be further functionalized with traditional organic synthesis reactions.                                                    |
| Catalysis                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| C-H bond oxidation         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Enantioselective catalysis |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Supramolecular Chemistry   | <b>C-H bond oxidation with supramolecular complexes of first-row transition metal complexes.</b> This research line focuses on the study of supramolecular catalysts for C-H bond oxidation. Fe and Mn complexes active in C-H bond oxidation are functionalized with supramolecular receptors to bind the substrate and display enhanced activity, change of mechanism, enzyme-like kinetics, and improved selectivity. Quantitative study of the reaction through tools such as reaction kinetics, binding studies, and effective molarity measurements allows for the rational design of new catalysts.                                  |
| Catalysis                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| C-H bond oxidation         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Physical Organic Chemistry |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Dissipative systems        | <b>Organic synthesis and temporal control of chemical systems by means of Activated Carboxylic Acids.</b> This research line studies the applications of Activated Carboxylic Acids (ACAs) for the temporal control of chemical systems such as Dynamic Chemical Libraries of compounds that interchange through the breakage and formation of covalent or supramolecular bonds. Furthermore, ACAs are researched for the temporal control of electrochemical properties (voltage of a cell and conductivity of a solution), as transient catalysts as well as reagents to enable the synthesis of organic molecules via cascade reactions. |
| Organic Chemistry          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Supramolecular Chemistry   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Organic synthesis          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Part VIII – Oral and poster contributions to conferences

1. Poster Presentation at **iCHAT (2nd International Conference on Hydrogen Atom Transfer)** – Monteporzio Catone (Italy) (July 2017) entitled “*Direct hydroxylation of benzene and aromatics with H<sub>2</sub>O<sub>2</sub> catalyzed by a self-assembled iron complex: Evidence for a metal-based mechanism*”. **(International conference)**
2. Oral Presentation at CIRCC (**Consorzio Interuniversitario per le Reattività Chimiche e la Catalisi**) – Trieste (Italy) (2018)
3. Oral Presentation at **Chimica supramolecolare: Giornata dei Dottorandi 2018** organised by CNR – Rome (Italy) (January 2018) entitled “*Direct hydroxylation of benzene and aromatics with H<sub>2</sub>O<sub>2</sub> catalyzed by a self-assembled iron complex: evidence for a metal-based mechanism*”, G. Capocasa
4. Poster Presentation at **ShareScience 2019** - Rome (Italy) (October 2019) entitled “*Supramolecular systems*”, G. Capocasa, S. Di Stefano, O. Lanzalunga, C. Biagini
5. Oral Presentation at **SYNC 2022** entitled “*Desymmetrizing carboxylic acids via directed primary and secondary C-H bond oxidation*”, G. Capocasa, Arnau Call, A. Palone, E. Aparicio, M. Bietti, M. Costas. – Rome (Italy) (June 2022). **(International conference)**
6. Oral Presentation at **iCHAT (3rd International Conference on Hydrogen Atom Transfer)** – Monteporzio Catone (Italy) (July 2022) entitled “*More than the sum of its parts. Combining UV-Vis and EDXAS to investigate reaction mechanisms*”, G. Capocasa, F. Tavani, A. Martini, O. Lanzalunga, S. Di Stefano, P. D’Angelo. **(international conference)**

7. Poster Presentation at **ADHOC 2022** – Girona (Spain) (August 2022) entitled “*Enantioselective Primary And Secondary C-H Bond Oxidation Enabled by the Directing Group Approach*”, G. Capocasa, A. Call, A. Palone, E. Aparicio, M. Bietti, M. Costas. **(international conference)**
8. Oral Presentation at **XLI CDCO SCI – Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana** – Rome (Italy) (September 2023) entitled “*A simple device for electrochemical signal generation*”, G. Capocasa, F. Fratelloreto, S. Correale Cavallari, M. Valentini O. Lanzalunga, S. Di Stefano
9. Flash oral presentation at **Systems Chemistry in Italy** – Rome (Italy) (September 2023) “*Generation of Voltage Signals by Means of an Activated Carboxylic Acid*”, G. Capocasa, F. Fratelloreto, S. Correale Cavallari, M. Valentini O. Lanzalunga, S. Di Stefano
10. Poster Presentation at **ArtMoMa final conference** – Groningen (Netherlands) (January 2024) entitled “*A Straightforward Method for Generating Voltage Signals Employing Activated Carboxylic Acids*”, G. Capocasa, F. Fratelloreto, S. Correale Cavallari, M. Valentini O. Lanzalunga, S. Di Stefano. **(international conference)**
11. Oral presentation at **MACH-5 2024** – Bertinoro (Italy) (September 2024) as an **Invited Speaker** entitled “*Beyond Acid-Base Reactions: Interfacing Activated Carboxylic Acids with Electrical Circuits*”, G. Capocasa, F. Fratelloreto, S. Correale Cavallari, A. D’Arrigo, M. Valentini, O. Lanzalunga, S. Di Stefano. **(invited speaker, international conference)**

## Part IX – Summary of Scientific Achievements

All the information reported below is updated as of 28<sup>th</sup> March 2025.

| Product type           | Number | Data Base | Start | End  |
|------------------------|--------|-----------|-------|------|
| Papers [international] | 22     | Scopus    | 2017  | 2025 |

|                                         |                                                                                                                                                                                                                                                     |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Total Impact factor                     | 184 (Clarivate’s Journal Citation Report, accessible from WOS. Sum of the IFs for each journal where a paper was published. All IFs are referred to the year of publication. For papers published in the current year, the most recent IF was used) |
| Average Impact factor                   | 8.36 (calculated as Total Impact factor/Products, that is: 184/22)                                                                                                                                                                                  |
| Total Citations                         | 465 (Scopus)                                                                                                                                                                                                                                        |
| Average Citations per Product           | 21.1 (calculated as Citations/Products, that is: 465 /22)                                                                                                                                                                                           |
| Hirsch (H) index                        | 11 (Highest amongst Scopus and WOS)                                                                                                                                                                                                                 |
| Hirsch (H) index over the last 10 years | 11 (Highest amongst Scopus and WOS)                                                                                                                                                                                                                 |
| Normalized H-index                      | 1.57 (calculated by dividing the H-index by the number of years elapsed since the publication of the first paper. Hence, 11/7)                                                                                                                      |

## Part X– Selected Publications

Here is reported a list of the 12 publications selected for the evaluation. The asterisk indicates the corresponding author, while the candidate's name is underlined. Where available, the IF of the journal for the year of publication is reported. For the most recent papers, the reported IF is that of the previous year. Citation data is taken from Scopus while the IFs are taken from Clarivate's Journal Citation Report (accessible from WOS).

Whenever the candidate is a corresponding author or a (co-)first author, this is made explicit by an appropriate tag appended at the end of the citation.

1. Olivo, G.(\*), Capocasa, G., Lanzalunga, O., Di Stefano, S.(\*), Costas, M.(\*)  
Enzyme-like substrate-selectivity in C-H oxidation enabled by recognition  
*Chemical Communications* (2019) 55 (7), pp. 917-920. Cited 40 times.  
DOI: 10.1039/c8cc09328h **IF = 5.996**
2. Capocasa, G., Sessa, F., Tavani, F., Monte, M., Olivo, G., Pascarelli, S., Lanzalunga, O.(\*), Di Stefano, S.(\*), D'Angelo, P.(\*)  
Coupled X-ray Absorption/UV-vis Monitoring of Fast Oxidation Reactions Involving a Nonheme Iron-Oxo Complex  
*Journal of the American Chemical Society* (2019) 141 (6), pp. 2299-2304. Cited 28 times.  
DOI: 10.1021/jacs.8b08687 **(first author) IF = 14.612**
3. Biagini, C., Capocasa, G., Cataldi, V., Del Giudice, D., Mandolini, L., Di Stefano, S.(\*)  
The Hydrolysis of the Anhydride of 2-Cyano-2-phenylpropanoic Acid Triggers the Repeated Back and Forth Motions of an Acid–Base Operated Molecular Switch  
*Chemistry - A European Journal* (2019) 25 (66), pp. 15205-15211. Cited 22 times.  
DOI: 10.1002/chem.201904048 **(first author) IF = 4.857**
4. Biagini, C., Capocasa, G., Del Giudice, D., Cataldi, V., Mandolini, L., Di Stefano, S.(\*)  
Controlling the liberation rate of the in situ release of a chemical fuel for the operationally autonomous motions of molecular machines  
*Organic and Biomolecular Chemistry* (2020) 18 (20), pp. 3867-3873. Cited 11 times.  
DOI: 10.1039/d0ob00669f **(first author) IF = 3.876**
5. Capocasa, G., Di Berto Mancini, M., Fratelloreto, F., Lanzalunga, O.(\*), Olivo, G., Di Stefano, S.(\*)  
Easy Synthesis of a Self-Assembled Imine-Based Iron(II) Complex Endowed with Crown-Ether Receptors  
*European Journal of Organic Chemistry* (2020) 2020 (23), pp. 3390-3397. Cited 6 times.  
DOI: 10.1002/ejoc.202000388 **(first author) IF = 3.021**
6. Olivo, G.(\*), Capocasa, G., Ticconi, B., Lanzalunga, O., Di Stefano, S.(\*), Costas, M.(\*)  
Predictable Selectivity in Remote C–H Oxidation of Steroids: Analysis of Substrate Binding Mode  
*Angewandte Chemie - International Edition* (2020) 59 (31), pp. 12703-12708. Cited 39 times.  
DOI: 10.1002/anie.202003078 **(first author) IF = 15.336**
7. Olivo, G.(\*), Capocasa, G., Del Giudice, D., Lanzalunga, O., Di Stefano, S.(\*)  
New horizons for catalysis disclosed by supramolecular chemistry  
*Chemical Society Reviews* (2021) 50 (13), pp. 7681-7724. Cited 123 times.  
DOI: 10.1039/d1cs00175b **(review) IF = 60.615**



8. Ticconi, B., Capocasa, G., Cerrato, A., Di Stefano, S., Lapi, A., Marincioni, B., Olivo, G., Lanzalunga, O.(\*)  
Insight into the chemoselective aromatic: Vs. side-chain hydroxylation of alkylaromatics with H<sub>2</sub>O<sub>2</sub> catalyzed by a non-heme imine-based iron complex  
*Catalysis Science and Technology* (2021) 11 (1), pp. 171-178. Cited 6 times.  
DOI: 10.1039/d0cy01868f **IF = 6.177**
  
9. Fratelloreto, F., Capocasa, G., Olivo, G., Abdel Hady, K., Sappino, C., Di Berto Mancini, M., Levi Mortera, S., Lanzalunga, O., Di Stefano, S.(\*)  
Increasing the steric hindrance around the catalytic core of a self-assembled imine-based non-heme iron catalyst for C-H oxidation  
*RSC Advances* (2021) 11 (1), pp. 537-542. Cited 3 times.  
DOI: 10.1039/d0ra09677f **IF = 4.036**
  
10. Call, A.(\*), Capocasa, G., Palone, A., Vicens, L., Aparicio, E., Choukairi Afailal, N., Siakavaras, N., López Saló, M.E., Bietti,(\*) M., Costas, M.(\*)  
Highly Enantioselective Catalytic Lactonization at Nonactivated Primary and Secondary  $\gamma$ -C-H Bonds  
*Journal of the American Chemical Society* (2023) 145 (32), pp. 18094-18103. Cited 10 times.  
DOI: 10.1021/jacs.3c06231 **IF = 14.4**
  
11. Capocasa, G., Fratelloreto, F., Correale Cavallari, S., Valentini, M., Lanzalunga, O.(\*), Di Stefano, S.(\*)  
Signal Transduction Allows Temporal Control of the Potential of a Concentration Cell Driven by the Decarboxylation of an Activated Carboxylic Acid  
*Chemistry - A European Journal* (2024) 30 (13), art. no. e202303897, . Cited 2 times.  
DOI: 10.1002/chem.202303897 **(first author; corresponding author) IF = 3.9**
  
12. Capocasa, G., Fratelloreto, F., Valentini, M., Di Stefano, S.(\*)  
Molecular entanglement can strongly increase basicity  
(2024) 7 (1), art. no. 116, . Cited 3 times.  
*Communications Chemistry* DOI: 10.1038/s42004-024-01205-3 **(first author, review) IF = 5.9**

## Part XI – Complete list of publications taken from Scopus

Here is reported the complete list of publications. All data is taken from Scopus. The candidate's name is underlined. Whenever the candidate is a corresponding author or a (co-)first author this is made explicit by an appropriate tag appended at the end of the citation.

1. Capocasa, G., Olivo, G., Barbieri, A., Lanzalunga, O.(\*), Di Stefano, S.(\*)  
Direct hydroxylation of benzene and aromatics with H<sub>2</sub>O<sub>2</sub> catalyzed by a self-assembled iron complex: Evidence for a metal-based mechanism  
*Catalysis Science and Technology* (2017) 7 (23), pp. 5677-5686. Cited 36 times.  
DOI: 10.1039/c7cy01895a (**first author**)
2. Olivo, G.(\*), Capocasa, G., Lanzalunga, O., Di Stefano, S.(\*), Costas, M.(\*)  
Enzyme-like substrate-selectivity in C-H oxidation enabled by recognition  
*Chemical Communications* (2019) 55 (7), pp. 917-920. Cited 43 times.  
DOI: 10.1039/c8cc09328h
3. Capocasa, G., Sessa, F., Tavani, F., Monte, M., Olivo, G., Pascarelli, S., Lanzalunga, O.(\*), Di Stefano, S.(\*), D'Angelo, P(\*)  
Coupled X-ray Absorption/UV-vis Monitoring of Fast Oxidation Reactions Involving a Nonheme Iron-Oxo Complex  
*Journal of the American Chemical Society* (2019) 141 (6), pp. 2299-2304. Cited 30 times.  
DOI: 10.1021/jacs.8b08687 (**first author**)
4. Biagini, C., Capocasa, G., Cataldi, V., Del Giudice, D., Mandolini, L., Di Stefano, S.(\*)  
The Hydrolysis of the Anhydride of 2-Cyano-2-phenylpropanoic Acid Triggers the Repeated Back and Forth Motions of an Acid-Base Operated Molecular Switch  
*Chemistry - A European Journal* (2019) 25 (66), pp. 15205-15211. Cited 24 times.  
DOI: 10.1002/chem.201904048 (**first author**)
5. Biagini, C., Capocasa, G., Del Giudice, D., Cataldi, V., Mandolini, L., Di Stefano, S.(\*)  
Controlling the liberation rate of their in situ release of a chemical fuel for the operationally autonomous motions of molecular machines  
*Organic and Biomolecular Chemistry* (2020) 18 (20), pp. 3867-3873. Cited 13 times.  
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**Part XII – Miscellaneous: schools, mentoring, other fundings and other activities**

| Year      | Title                                                                                                                                                                                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015      | Summer WOOFing at “Imkerei in Worin” – Worin (Germany). Tasks: Beekeeping, general maintenance of the structures.                                                                                                                                             |
| 2017-2024 | Mentoring of master’s students (10 students from the Di Stefano Group). Mentoring of several undergraduate students (Di Stefano and Costas Group). Informal mentoring of several PhD students in Italian, English and Spanish (Di Stefano and Costas Groups). |
| 2019      | Attendance of the VIII Ciamician Photochemistry School held in Bologna.                                                                                                                                                                                       |
| 2020      | Earning of 24 CFU (university credits) in the pedagogy area for teaching in Italian high schools.                                                                                                                                                             |
| 2022      | Declared eligible for a Juan de la Cierva post-doctoral fellowship (renounced).                                                                                                                                                                               |
| 2023      | Received 2000 euros from Regione Lazio as part of the “Contributi premiali per i ricercatori e assegnisti di ricerca per rafforzarne la condizione professionale e potenziare il sistema della ricerca del Lazio” program.                                    |
| 2024      | Passed an exam and declared eligible for a technical personnel position at “La Sapienza” - Roma (area 1/D/CHIMICO DIP. CHIMICA; “disposizione n. 2160/2024 Prot. n. 86225 del 10.05.2024; Classif. VII/1”).                                                   |
| 2024      | Attendance of a 3-day course on advanced NMR techniques held by a Bruker application specialist.                                                                                                                                                              |