

CURRICULUM VITAE ADALGISA SINICROPI

PERSONAL INFORMATION



Family name, First name: Sinicropi Adalgisa

Researcher unique identifiers: ORCID: <http://orcid.org/0000-0001-5605-6482>, Scopus Author ID: 6507715808, Web of Science Researcher ID: D-6096-2011, Google Scholar: <http://scholar.google.it/citations?user=VHbflnkAAAAJ&hl=it>

Date of birth: 25/06/1974, Nationality: Italian

URL for the website: <https://docenti.unisi.it/en/sinicropi>, <https://www.r2eslab.com>, www.lifecares.unisi.it

• EDUCATION

2002 PhD in Chemical Sciences, Department of Chemistry, University of Siena, Italy
2002 Marie Curie Training Site Fellow, Department of Chemistry of King's College London, UK
1999 *Laurea* in Chemistry *Magna cum laude*, University of Siena

• CURRENT POSITION(S)

2019–present Associate Professor of Organic Chemistry, Department of Biotechnology, Chemistry and Pharmacy, University of Siena
2020–present Co-founder and President of the Administrative Board of the Spin-off LifeCARES srl, *Life Cycle Assessment, Renewable Energy and Sustainability*, <https://www.lifecares.unisi.it>
2023 National Academic Qualification as Full Professor of Organic Chemistry
2017 National Academic Qualification as Full Professor of Physical Chemistry
2014–present Associated Staff, ICCOM, National Research Council, Italy
2012–present Associated Staff, CSGI (Research Center for Colloids and Nanoscience), Florence, Italy

• PREVIOUS POSITIONS/ FELLOWSHIPS

2008–2019 Assistant Professor, University of Siena, Italy
2008 Postdoctoral Fellowship within the project EU/RT MECHOS, Department of Chemistry, University of Siena, Italy
2002–2008 Postdoctoral Fellow, Department of Chemistry, University of Siena, Italy
2002 Marie Curie Training Site Fellow, Department of Chemistry, King's College London, UK

• SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS

Since 2018 6 Postdocs (scientific responsible for fellowship within the ESPResSo H2020 project, Department of Excellence 2018–2022 project, PON R&I project SOLARGRID, HORIZON-EIC-2023-PATHFINDERCHALLENG – JUMP INTO SPACE, RT Project INSIEME)
Since 2011 10 PhD: XXXVII-XXXIX cycles Doctorate Program in “Sustainable Development and Climate change (PhD SDC)”, Scuola Universitaria Superiore IUSS-Pavia, Univ. of Siena; XXIV cycle, Doctorate Program in Chemical Sciences, Univ. of Siena; XXXII-XXXIII cycles, Doctorate Program in Industrial engineering, Pegaso, Univ. of Florence; XXXIV, XXXVI, XL cycle, Doctorate Program in Chemical and Pharmaceutical Sciences, Univ. of Siena
Since 2008 31 Master's and Bachelor's Students (Master's Degree in Sustainable Industrial Pharmaceutical Biotechnology Master's Degree in Chemistry, Master's Degree in Chemistry and Pharmaceutical Technologies, Bachelor's Degree in Chemistry)

• TEACHING ACTIVITIES

2025– Associate Professor, Department of Biotechnology, Chemistry and Pharmacy, University of Siena: *Computational Chemistry and Design of Molecular Materials and Machine Learning Approaches to Computational Chemistry*, Master's Degree in Sustainable Industrial Pharmaceutical Biotechnology
2015–present Associate Professor, Department of Biotechnology, Chemistry and Pharmacy, University of Siena: *Physical Methods in Organic Chemistry*, Master's Degree in Chemistry and

	Pharmaceutical Technologies and <i>Elements of Computational Organic Spectroscopy</i> , Master's Degree in Chemistry
2019-2024	Associate Professor, Department of Biotechnology, Chemistry and Pharmacy, University of Siena: <i>Big Data Issues in Computational Chemistry</i> , Master's Degree in Sustainable Industrial Pharmaceutical Biotechnology
2019-2020	Associate Professor, Department of Life Sciences, University of Siena: <i>Elements of Organic Chemistry</i> , Bachelor's Degree in Biological Sciences
2009-2012	Assistant Professor, Faculty of Mathematical, Physical and Natural Sciences, University of Siena: <i>organic, physical and computational chemistry</i> courses for Master's Degree in Chemistry and Bachelor's Degree in Chemistry students.
2005-2008	Teaching on a contract basis of <i>organic, physical and computational chemistry</i> courses for students at the Faculty of Mathematical, Physical and Natural Sciences, University of Siena
2018	<i>Invited lecturer</i> at the "International School on Hybrid and Organic Photovoltaics (ISOPHOS)", 2-6 Settembre 2018, Castiglione della Pescaia, Italia
2012	<i>Invited lecturer</i> at the "Summer School on Photochemistry", Holland Research School of Molecular Chemistry (www.hrsmc.nl), Wijk aan Zee, The Netherlands
2007	<i>Invited lecturer</i> at the Workshop "Dynamics in electron spin resonance: theory, implementation and applications", University of Padova, Italy
2006	<i>Lecturer</i> at the "Computational Organic Chemistry School", University of Siena, Italy
2002-2005	Teaching activities at the Master "Energy Management: Rational and Efficient Use of Energy", Siena

• ORGANISATION OF SCIENTIFIC MEETINGS

2018	<i>Member of the Organizing Committee (and Session Chair)</i> of the 1st Enerchem School on Chemistry of Renewable Energies, Florence, 20-24/02/2018
2018	<i>Member of the Scientific Committee (and Session Chair)</i> of the XXXVI Convegno Interregionale Tuma, Pisa, 4-5/10/2018
2016	<i>Member of the Organizing Committee (and Session Chair)</i> of the first Congress of the Interdivisional Group of the Italian Chemical Society on Chemistry of Renewable Energies (ENERCHEM), Florence, 18-20/02/2016
2014	<i>Co-Chair of the ENERCHEM-Photochemistry-Physical Chemistry Session</i> at the XXV National Congress of the Italian Chemical Society, Università della Calabria, 7-12/09/2014
2013-2015 /2019	<i>Member of the Organizing Committee</i> of the summer school Emory@Unisi "Chemistry for Life and Environment", Siena within the Cooperation Program between the University of Siena and the Emory University, Atlanta, USA, 27/05-04/07/2019, Siena
2008	<i>Member of the Organizing Committee</i> of the International COST meeting on advanced paramagnetic resonance in molecular biophysics, Siena, Italy, 24-26/08/2008
2006	<i>Member of the Scientific Committee</i> of the "Scuola di Chimica Computazionale: Introduzione, per Esercizi, all'Uso del Calcolatore in Chimica Organica e Biologica", Siena, 25-29/09/2006
2003	<i>Member of the Scientific and Organizing Committee</i> of the "V Congresso Nazionale del Gruppo Interdivisionale di Chimica Computazionale", Siena, 18-19/12/2003.
2001	<i>Member of the Organizing Committee</i> of the "Convegno Nazionale di Fotochimica 2001", Siena, 19-20/12/2001.

• INSTITUTIONAL RESPONSIBILITIES

2024-present	Representative for the University of Siena in the Technological District of Tuscany for Energy
2023-present	Representative for the University of Siena in the National Energy Technology Cluster
2020-present	Coordinator of Master's Degree in <i>Sustainable Industrial Pharmaceutical Biotechnology</i> , Dept. of Biotechnology, Chemistry and Pharmacy, University of Siena
2021-present	Member of the Teaching Committee and coordinator of the Chemical Area of CU3 of the Doctorate Program in "Sustainable Development and Climate change (PhD SDC)"
2021-present	Member of the Teaching Staff of the Doctorate Program in "Sustainable Development and Climate change (PhD SDC)", coordinated by Scuola Universitaria Superiore IUSS-Pavia
2020-present	Member of the Sustainability Commission, University of Siena
2022-	President of the Graduation Examining Committee for Its – Higher Technical Education –

Courses	
2021	Member of the Evaluation Panel for “Progetti@CNR 2020”
2019-2022	Member of the International Relationship Commission, University of Siena
2019-2020	Member of the Italian Board Horizon 2020, Energy
2019	CSGI representative, PNR2021-2017, Energy & Climate changes
2018-present	Member of the Board of the PhD School in Chemical and Pharmaceutical Sciences, University of Siena
2015-2018	Member of the orientation committee, Dept. of Biotechnology, Chemistry and Pharmacy, University of Siena
2017-2018	Member of the research committee, Dept. of Biotechnology, Chemistry and Pharmacy, University of Siena
2016-2017	Member of the Board of the PhD School in Industrial Engineering, University of Florence
2013-2015	Member of the Board of the PhD School in Chemical Sciences, University of Siena
2011	Member of the Board of the PhD School in Chemical Sciences, University of Florence
2014 – 2018	Member of the Steering Committee of the Tuscany section of the Italian Chemical Society
2013 – 2016	Member of the “Giunta di Dipartimento” (rectoral decree n. 241/2013), Department of Biotechnology, Chemistry and Pharmacy, University of Siena
2008-2012	Faculty member, Faculty of Mathematical, Physical and Natural Sciences, University of Siena

PROJECTS and SCIENTIFIC RESPONSIBILITIES (main)

2025-ongoing	SCIENTIFIC RESPONSIBLE for Unisi activities within the project PNRR, Investimento 3.5 “Ricerca e sviluppo sull'idrogeno”, previsto nella Missione 2, “Rivoluzione verde e transizione ecologica”, Componente 2 “Energia rinnovabile, idrogeno, rete e mobilità sostenibile” (M2C2-3.5) “Produzione diffusa fotoattivata di idrogeno verde tramite materiali e processi sostenibili (SOLE-H2)”
2025-ongoing	SCIENTIFIC RESPONSIBLE for LifeCARES s.r.l activities within the project HORIZON-EIC-2024-PATHFINDEROPEN BIOSINFIN “Bioinspired Singlet Fission Photon Multipliers”
2024- ongoing	SCIENTIFIC RESPONSIBLE for Unisi activities within the project HORIZON-EIC-2023-PATHFINDERCHALLENGE – JUMP INTO SPACE “Flexible lightweight multi-junction solar cells and modules with enhanced performance for efficient light harvesting in outer space”
2024- ongoing	SCIENTIFIC RESPONSIBLE for Unisi activities within the project HORIZON-MSCA Doctoral Networks MENTOR “Indoor photovoltaics: towards an energy- and climate-neutral world”
2024- ongoing	SCIENTIFIC RESPONSIBLE for Unisi activities within the VIPERLAB Research Proposal “Self-assembled monolayers for inverted perovskite solar cells: a combined DFT/MD study”
2022- ongoing	SCIENTIFIC RESPONSIBLE for Unisi activities within the project RELIABLE, PROGETTI DI RICERCA@CNR
2021-2023	RESPONSIBLE for LifeCARES s.r.l. activities within the project IDRO.SMART, POR FESR TOSCANA 2014–2020
2020-2023	WP leader in the PON R&I project SOLARGRID - Solar thermodynamic and photovoltaic systems with storage for cogeneration and GRID flexibility.
2018-2022	Unit Leader in the H2020 project ESPResSo – Efficient Structures and Processes for Reliable Perovskite Solar Modules.
2018-2022	WP Leader in the Department of Excellence 2018-2022 project, “Development and application of QM/MM technologies for the design of light-responsive proteins or protein-mimics based on the rhodopsin architecture”.
2010-2013	SCIENTIFIC RESPONSIBLE of WP “Design and computational characterization of novel sensitizers for non-conventional photovoltaics” within the project FOTOLENSORG” POR CREO FSE 2007-2013.
2018-2021	Scientific responsible for three-year research contract "Sustainability profile of perovskite PV technology", CSGI (Consorzio per lo Sviluppo dei Sistemi a Grande Interfase).
2018-2020	Scientific responsible of two-years research contract “Design of Bio-sensitized solar energy conversion devices”, University of Siena.
2019	Scientific responsible for “CINECA Awards N. HP10FAQUN”, “Understanding Charge Transfer processes at the interface between perovskite and organic hole transport materials: towards the design of more efficient and stable Perovskite Solar Cells”

2018	Scientific responsible for "CINECA Awards N. HP10CIBQF2", "Theoretical study of the electron transfer in a light-sensitive protein: bacteriorhodopsin"
2013	Scientific responsible for "CINECA Awards N. HP10CXBWGO", "MD and QM/MM MD investigation of Versatile Peroxidase Variants"
2011	Scientific responsible for "CINECA Awards N. HP10CJ65S2", "Computer modeling of new organic dyes for photovoltaic cells"

ACHIEVEMENTS and AWARDS

- *Invited speaker* and Chair at the "9th edition of the International Conference on Functional Nanomaterials and Nanodevices (NANOMAT2025)" 2-5.9.2025, Zagreb, Croatia
- *Invited speaker* "COMBUSTIBILI DI SINTESI (E-FUELS)", ACCADEMIA NAZIONALE DEI LINCEI E FONDAZIONE "GUIDO DONEGANI", 3-4 OTTOBRE 2024.
- Fellow of the Royal Society of Chemistry (FRSC) since 06.2023
- "Legambiente - Good practices for innovation" Award for the design of innovative devices for the conversion of solar energy within the 'Department of Excellence 2018-2022' project
- Invitation to write a *contribution for Nature Sustainability*, News & Views.
- *TedX invited speaker*, Siena, 23 Marzo 2019, Palazzo Chigi-Saracini, Siena
- Invitation to write a *contribution for the Special Issue* dedicated to Maurizio Peruzzini (2020) and Carlo Mealli (2017) on *Inorganica Chimica Acta*.
- *Commenter* of the White Paper "A Strategic Plan for Research and Innovation to Relaunch the Italian Photovoltaic Sector and Contribute to the Targets of the National Energy and Climate Plan" PV-impact, 2020
- *Co-author* of the White Paper from the European Perovskite Initiative (EPKI), 2019.
- *Co-author* of the Executive Summary: The Italian BLUEMED White Paper: an overview of the relevance, obstacles and proposals of the key sectors for a "Blue" Growth, CNR Edizioni, 2018
- The paper "Bernini C., Andruniów T., Olivucci M., Pogni R., Basosi R., and Sinicropi A., J. Am. Chem. Soc., 2013, 135 (12), 4822–4833 has been selected by the JACS editor as "JACS Spotlights" (see <http://pubs.acs.org/doi/full/10.1021/ja403242v>).
- *Sophie Vanhulle Prize*, received during the "OxiZymes & 9th International Symposium on Peroxidases", in Leipzig, Germany (14/6/2010) for the originality of the presented work, its novelty and overall significance relative to the respective field, as well as the application of innovative, modern, and appropriate methodological approaches.
- Invitation to write a *Critical Review*: Sinicropi A., "Biomimetic Photoswitches", La Chimica e l'Industria, 2010, 3, 102
- The paper: "Brogioni B., Biglino D., Sinicropi A., Reijerse E. J., Giardina P., Sannia G., Lubitz W., Basosi R., Pogni R., Physical Chemistry Chemical Physics, 2008, 10, 7284-7292 has been selected as one of the 40th articles to be included in a special issue of PCCP to celebrate 100 years of the Italian Chemical Society.
- Award from the Physical Chemistry Chemical Physics Journal (RSC) for the 'Best Interdisciplinary Poster', 2008, with the motivation: "An interdisciplinary work employing organic molecules for the preparation of photochemical switches, in collaboration with the Department of Chemistry, Bowling Green State (USA)".
- One of the five finalists of the Primo Levi Prize, 2005
- JOURNAL COVERS: Photochemical & Photobiological Sciences, 2003, 2, 12, 1250-1255 and Photochemical & Photobiological Sciences 2002, perspective, 1, 8, 537-546; Sustainable Energy Fuels, 2024, 8, 2570-2582.

EDITORIAL ACTIVITY and REFEREE DUTIES

Since 2022	Advisory Board Member , Sustainable Energy & Fuels, Royal Society of Chemistry, https://www.rsc.org/journals-books-databases/about-journals/sustainable-energy-fuels/#AB Associate Editor for Green and Sustainable Chemistry of Frontiers in Chemistry Editorial Board Member of La Chimica e L'Industria, official journal of the Italian Chemical Society
2020-present	Editorial Board Member of Energies, MDPI
2021-present	Editorial Board Member of Photochem, MDPI Guest Associate Editor for Frontiers in Environmental Science

Referee duties:

- **Peer-Reviewed Journals (a selection):** Journal of the American Chemical Society, Journal of Theoretical and Computational Chemistry, Molecular Simulation, Chemistry: A European Journal, The Journal of Physical Chemistry A, Physical Chemistry Chemical Physics, The Journal of Physical Chemistry, Journal of Photonics for Energy, Energies, Nature Sustainability, Molecules, Journal of Computational Electronics, Advanced Sustainable Systems, Renewable and Sustainable Energy Reviews, Materials Chemistry and Physics, Journal of Photochemistry and Photobiology A: Chemistry, International Journal of Quantum Chemistry, Applied Sciences, Sustainable Energy Technologies and Assessments, Journal of Physical Organic Chemistry, Journal of Energy Storage, Dalton Transactions, Journal of Molecular Structure, The Journal of Physical Chemistry Letters, Arabian Journal of Chemistry, Journal of Molecular Liquids, Journal of Inorganic Biochemistry, Materials, ChemistrySelect.
- **Funding Agencies:** CONICYT (Chilean)
- **Ph.D Thesis:**
Nicole Mariotti, 2022, Università degli studi di Torino.
Csaba Daday, 2015, University of Twente, Enschede, The Netherlands.
Francisco Fernández García-Prieto, 2015, Universidad de Extremadura, Badajoz, Spain, Endorsement
Juan Manuel Ortiz Sánchez, 2009, Universitat Autònoma de Barcelona, Spain.

MEMBERSHIP OF SCIENTIFIC SOCIETIES

- Royal Society of Chemistry
- Società Chimica Italiana (Italian Society of Chemistry) – Divisions: Organic Chemistry, Physical Chemistry and Computational Chemistry; Interdivisional Group of Chemistry for Renewable Energies
- “Life Cycle Assessment” Italian Network

RESEARCH INTERESTS

AS recognized research activity comprises the *design and characterization using computational methods and life cycle analysis of innovative materials for energy production and storage* characterized by high efficiency, stability and with high environmental added value. AS coordinates the activities of the “Research on Renewable Energy and Sustainability Lab (R²ESlab)” group (www.r2eslab.com). The group has robust expertise in renewable energy conversion systems, with a focus on innovative materials/processes and emerging technologies.

Other interests: Modeling oxidative enzymes, Computational spectroscopy of protein radicals: implications for Electron Transfer processes, Modeling fluorescent proteins.

Ten years track-record

A. Sinicropi is the author of more than 100 papers (100 research papers in peer-reviewed journals, 4 book chapters, 3 publications in science magazines, 3 contributions to White Papers/executive summary) plus 3 journal covers and several lectures at conferences.

h-index: 29 (Scopus), 35 (Scholar) (September 2025):

“In compliance with the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.”

Firenze, 29.09.2025

