

# Luca Capaldo

## - CV -

### • PERSONAL INFORMATION

Name Luca Capaldo  
Date of birth 27/08/1991  
Nationality Italian



### • CURRENT POSITION

University of Parma  
01/10/2023 – present  
**Assistant Professor** @ University of Parma  
Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Italy  
Main research interests: photochemistry, flow chemistry, electrochemistry, synthetic methodologies, mechanistic investigation

### • PREVIOUS POSITIONS

University of Amsterdam  
01/04/2023 – 30/09/2023 **Post-doctoral Fellowship**  
Project: “*Multi Modal Photochemistry*” funded by NWO  
Supervisor: Prof. Timothy Noël  
Flow Chemistry Group, Van 't Hoff Institute for Molecular Sciences (HIMS), University of Amsterdam, The Netherlands

01/04/2021 – 31/03/2023 **MSCA Individual Fellowship**  
Project: “*Flow Photoelectrocatalysis via Hydrogen-Atom Transfer: net-oxidative C–H to C–C bond conversion*” (HAT-TRICK, Project no. 101023615) funded by European Union’s Horizon 2020 research and innovation programme.  
Supervisor: Prof. Timothy Noël  
Flow Chemistry Group, Van 't Hoff Institute for Molecular Sciences (HIMS), University of Amsterdam, The Netherlands

01/01/2021 – 31/03/2021 **Post-doctoral Fellowship**  
Project: “*Photochemical C–H bond amination*” funded by Lilly Research Award Program  
Supervisor: Prof. Timothy Noël  
Flow Chemistry Group, Van 't Hoff Institute for Molecular Sciences (HIMS), University of Amsterdam, The Netherlands

University of Pavia  
01/10/2018 – 31/12/2020 **Post-doctoral Fellowship**  
*Photocatalytic processes applied to radical substitution reactions*  
Supervisor: Prof. Davide Ravelli  
PhotoGreen Lab, Department of Chemistry, University of Pavia, Italy

01/10/2019 – 30/09/2020 **Post-doctoral Fellowship**  
*Synthetic processes mediated by high-energy intermediates*  
Supervisor: Prof. Davide Ravelli  
PhotoGreen Lab, Department of Chemistry, University of Pavia, Italy

01/10/2018 – 30/09/2019 **Post-doctoral Fellowship**  
*Metallo-oxo complexes as photocatalysts in reactions via Hydrogen Atom Transfer*  
Supervisor: Prof. Davide Ravelli  
PhotoGreen Lab, Department of Chemistry, University of Pavia, Italy

### • EDUCATION

01/10/2015 – 30/09/2018 **Ph.D. in Chemical and Pharmaceutical Sciences**  
Department of Chemistry, University of Pavia, Italy  
Defense: 22/02/2019 (final grade: *eccellente*. Comparable to Summa cum Laude)  
Advisor: Prof. Maurizio Fagnoni.  
Thesis title: *Novel Photocatalytic Approaches for Ecosustainable Synthesis*  
Abstract published on *EPA Newsletters – December 2018, pp. 42-47*

14/10/2013– 22/07/2015	<b>Master's Degree in Chemistry</b> Department of Chemistry, University of Pavia, Italy Degree obtained on 22/07/2015 (110/110 <i>Magna cum Laude</i> ) Advisors: Prof. Luisa de Cola and Prof. Maurizio Fagnoni Thesis title: <i>Organic Chemistry for Bioimaging, LEDs and Superconductors</i>
13/09/2010– 25/07/2013	<b>Bachelor's Degree in Chemistry</b> Department of Chemistry, University of Pavia, Italy Degree obtained on 25/07/2013 (110/110 <i>Magna cum Laude</i> ) Advisor: Prof. Angelo Albini Thesis title: <i>HAT &amp; SET: Two Competing Mechanisms for Photocatalyzed Reactions</i>

## • **INTERNSHIPS**

08/01/2018 – 08/06/2018	<b>Visiting Ph.D. Student</b> Project: “[2+2] photocycloadditions mediated by Ir-complexes” Department of Chemistry, University of Wisconsin-Madison, United States Advisor: Prof. Tehshik P. Yoon Publication: <i>Org. Lett.</i> <b>2021</b> , 23, 3496–3501
01/10/2014 – 28/02/2015	<b>Visiting M.Sc. Student (Erasmus Traineeship)</b> Project: “ <i>Pt and Zn complexes for applications in bioimaging and OLEDs</i> ” Institut de Science et d'Ingénierie Supramoléculaires, Strasbourg, France Advisor: Prof. Luisa De Cola Publication: <i>Isr. J. Chem.</i> <b>2019</b> , 59, 892–897

## • **AWARDS**

03/10/2025	<b>Franco Scandola GIF Young Investigator Award 2025</b> by the Gruppo Italiano di Fotochimica
18/04/2025	<b>UNIPR Outstanding Junior Researcher Award</b> by the University of Parma.
28/02/2025	<b>National Scientific Habilitation (ASN) in Industrial Chemistry (SC 03/C2)</b>
25/04/2024	<b>“Organic Chemistry in its Methodological Aspects” Junior Award</b> by the Italian Chemical Society – Division of Organic Chemistry.
27/03/2023	<b>2023 CAS Future Leaders Top 100</b> by CAS (American Chemical Society).
01/06/2022	<b>National Scientific Habilitation (ASN) in Organic Chemistry (SC 03/C1)</b>
06/10/2020	<b>“Primo Levi” award</b> by the Italian Chemical Society.
28/02/2020	<b>“conScienze 2019” Ph.D. thesis award</b> by the Conferenza Nazionale dei Presidenti e dei Direttori delle Strutture Universitarie di Scienze e Tecnologie.
30/09/2019	<b>“Ugo Mazzucato” Best PhD thesis award</b> in Photochemistry 2019 (XXXI cycle) by the Italian Group of Photochemistry of the Italian Chemical Society.
04/06/2019	<b>Best Ph.D. Thesis Award</b> in “Organic Chemistry in its Methodological Aspects” by the Italian Chemical Society – Division of Organic Chemistry.
12/09/2017	<b>Reaxys Sci Young Researcher Award</b> (2nd Place) by Elsevier and the Italian Chemical Society (Young group).

## • **GRANTS**

2025	FIS2 “Fondo Italiano per la Scienza” ( <b>XAT2.0</b> , ID: FIS-2023-01733). <b>~1.3 M€</b>
2025	PI in Linea YOURII from MUR ( <b>CORAL</b> , ID: MSCA2024_0000013). <b>300 k€</b>
2025	“Azione C” from UNIPR. <b>30 k€</b>
2024	ERC Starting Grant 2024 “ <b>ico-XAT</b> ”. Step 1: passed. Step 2: B grade.
2024-2025	Leader in the High-Performance Computing (HPC) project ( <b>HALOcomp</b> , HP10CZGH69) granted by CINECA <b>50.000 h</b>
2021-2023	MSCA Individual Fellowship ( <b>HAT-TRICK</b> , ID: 101023615) funded by European Union’s Horizon 2020 research and innovation programme. <b>~190 k€</b>
2020-2021	Collaborator in the High-Performance Computing (HPC) project (ID: IsC78_PBsquare) granted by the Italian Consortium CINECA-SCAI.

## • **INSTITUTIONAL ROLES**

10/2025 – present	<b>Scientific Area Committee member</b> , Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Italy.
01/2025 – present	<b>Joint Student-Teacher Committee member</b> , Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Italy.

06/2024 – present	<b>Junta member</b> , Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Italy.
10/2023 – present	<b>Faculty member</b> , Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Italy.
09/2024 – present	<b>Member of Doctoral School in Chemical Science</b> at the University of Parma. Course: “Modern Carbonylation Methods”, Workload: 8 h of active teaching.

### • DIDACTICAL ACTIVITIES

#### *Teaching:*

2024 - present	<b>Professor</b> - “Industrial chemical processes and emerging technologies: development and management” @ University of Parma – 24 h
2023 - present	<b>Professor</b> “Polymers Science” @ University of Parma – 30 h.
2023 - present	<b>Professor</b> “Materials chemistry and technology” @ University of Parma – 30 h.
02/2023	<b>Lecturer</b> “Reactor design” @ University of Amsterdam – 15 hours.
2016 – 2020	Supervision of <b>students in lab and theoretical courses</b> (more than 150 hours as tutor or giving seminars for the Inorganic Chemistry, Organic Chemistry Laboratory I and II and Organic Chemistry courses for the Bachelor’s Degree in Chemistry and Biotechnology at the University of Pavia).
07/2016 & 07/2017	Teaching activity for <b>high-school students</b> within the frame of PLS (Piano Lauree Scientifiche), a project meant to make them approach to chemistry. Students were awarded by the PLS committee for their outstanding activity both times.

#### *Mentoring:*

10/2018 – present	<b>Main supervision. Ph.D. students</b> (@UNIPR: Luna R., Amy N. C., Giulio G., Ester V.), <b>M.Sc. students</b> (@UNIPR: Sofia C., Marzia P., Serena A.), <b>B.Sc. students</b> (@UNIPR: Martina V., Irene D., Rocco B.).
	<b>Co-supervision. Postdocs:</b> (@UNIPR: Valerio M., Ana Maria C., Francesco P., Aleksandr V.), <b>PhD students</b> (@UvA: Ting W., Stefano B., Antonio P., Lukasz C., Dimitris I., Jonas D., Morgan R., Clara V.; @UNIPR: Filippo S., Vittoria M., Francesco M., Nikolaos N.), <b>M.Sc. students</b> (@UNIPV: Lorenzo Q., Roberto T.; @UvA: Walter V.; Robin M.), <b>B.Sc. students</b> (@UNIPV: Nicoletta F.; @UvA: Perry v.d.H., Volkert D.; @UNIPR: Ilham T., Chiara. D. B.).

#### *Invited lectures:*

02/07/2025	“Decarbonylative Photocatalyzed Hydrogen Atom Transfer”, lecture at the University of Cagliari. Invitation from Prof. Andrea Porcheddu.
10/09/2024	“XAT2.0: Photoinduced Halogen-Atom Transfer by NHC-ligated Boryl Radicals”, lecture at the University of Bari. Invitation from Prof. Renzo Luisi and Prof. Marco Colella.
20/06/2023	“Organic photochemistry in continuous-flow”: the main focus of the course was to introduce Ph.D students at the University of Pavia to flow chemistry. Invitation from Prof. Davide Ravelli.
27/03/2023	“Pushing the Boundaries of Photocatalyzed Synthesis: Merging Methodology And Technology”, lecture at the University of Tor Vergata. Invitation from Prof. Massimo Bietti.
24/02/2023 & 03/03/2023	“Photochemistry & photocatalysis: how to?”, lecture at the University of L’Aquila. Invitation from Prof. Armando Carbone.
16/09/2022	“Pushing the Boundaries of Photocatalyzed Synthesis by Merging Methodology And Technology”, lecture at the University of Parma. Invitation from Prof. Giovanni Maestri.
03/12/2021	“Synthetic Photoelectrochemistry: the dawn of a new alliance in organic synthesis”, lecture at the University of L’Aquila. Invitation from Prof. Armando Carbone.

### • REVIEWER & EDITORIAL EXPERIENCE

#### *As an editor:*

- Associate Editor for the Journal of Flow Chemistry (Springer and Akademia Kiado).
- Guest editor for the 2023 Special Issue "Emerging Investigators in Flow Chemistry" on *J. Flow. Chem.*

#### *As a reviewer:*

- 81 verified reviews - Web of Science ResearcherID: X-3549-2019

- **ORGANIZATION OF CONFERENCES**

18/12/2023 **GdC2023** – XXII Giornata della Chimica dell’Emilia-Romagna 2023. *This is a conference that brought together PhD students in Chemistry from the whole Emilia-Romagna in Italy. Main theme: Chemistry for Health.*

24-25/02/2022 **ETOC** – Enabling Technologies for Organic Synthesis. *The first edition of the ETOC Symposium took place on February 24-25, 2022 in a fully digital setting and counted 486 attendees. It brought scientists from all over the world together to share their knowledge in the field of organic chemistry and technology utilization. The program was developed around different crucial topics, such as photoredox catalysis, electrochemistry, machine learning and biocatalysis, among others.*

- **CONTRIBUTIONS TO CONFERENCES**

*As invited speaker:*

26-30/08/2024 “Rapid and scalable photocatalytic C(sp<sup>2</sup>)–C(sp<sup>3</sup>) Suzuki–Miyaura cross-coupling of aryl bromides with alkyl boranes” at **SCI2024 Elements of Future – XXVIII National Congress**, Milano (IT). *I was invited to give this talk as a recipient of the “Organic Chemistry in its Methodological Aspects” Junior Award.*

11-14/12/2022 “Photoinduced Halogen-Atom Transfer (XAT) by N-heterocyclic Carbene Boryl Radicals for C–C Bond Formation” at the **11<sup>th</sup> Singapore International Chemistry Conference (SICC-11)**, Singapore (SG). *I was invited by Prof. Jie Wu to give this talk in the format of a keynote presentation.*

23-24/09/2021 “Novel Photocatalytic Approaches for Ecosustainable Synthesis” at **Giornate Italiane di Fotochimica del Gruppo Italiano di Fotochimica**, online symposium. *I was invited to give this talk as a recipient of Premio Ugo Mazzucato for the best Italian PhD Thesis in Photochemistry in 2019/20.*

07/10/2020 “Uranyl Cation as a Visible Light Photocatalyst for C-C Bond Formation via HAT” at **SCI Giovani Award Ceremony**, online symposium. *I was invited to give this talk when I was awarded the Primo Levi Award for my work on the photochemistry of the uranyl dication.*

08-12/09/2019 “The Triangle of Photocatalysis: Different Approaches for Ecosustainable Synthesis” at **“XXIX Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana”**, Torino (IT).  
*I was invited to give this talk when I was awarded the Best Ph.D. thesis Award in Organic Chemistry for its Methodological Aspects. This is the most relevant national meeting of the Organic Chemistry Division of the Italian Chemical Society.*

05/07/2019 “Novel Photocatalytic Approaches for Ecosustainable Synthesis” at **“VII Workshop Nazionale Gruppo Interdivisionale Green Chemistry – Chimica Sostenibile, Società Chimica Italiana”**, Padova (IT).  
*I was invited to give this talk because I was one of the finalists for the Green Chemistry Award 2019.*

*As oral presentations:*

12-15/10/2025 “Decarbonylative Photocatalyzed Hydrogen Atom Transfer” at **JISOC**, Bari (IT).

21-25/09/2025 “CO-HAcTive: A Decarbonylative Strategy to Enhance Efficiency and Regioselectivity in Photocatalyzed Hydrogen-Atom Transfer” at **CDCO2025**, Villasimius (IT).

07-11/07/2024 “Rapid and scalable photocatalytic C(sp<sup>2</sup>)–C(sp<sup>3</sup>) Suzuki–Miyaura cross-coupling of aryl bromides with alkyl boranes” at **9<sup>th</sup> EuChemS Chemistry Congress**, Dublin (IRL).

10-14/09/2023 “Photoinduced Halogen-Atom Transfer (XAT) by N-heterocyclic Carbene Boryl Radicals for C–C Bond Formation” at the **“XLI Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana”**, Roma (IT).

26-30/06/2022 “Continuous-flow as an enabling technology for photocatalyzed Hydrogen Atom Transfer” at **“3rd International Conference on Hydrogen Atom Transfer”**, Monteporzio Catone (IT).

07-08/12/2021 “Regioselective and scalable C–H functionalization via flow photocatalysis” at **“NWO Chains 2021”**, online conference.

22-24/11/2021 “Decatungstate-mediated C(sp<sup>3</sup>)–H heteroarylation via radical-polar crossover in batch and flow” at **“Merck Young Chemists’ Symposium 2021”**, Rimini (IT).

03-06/11/2020 "Antimony–Oxo Porphyrins as Photocatalysts for Redox-Neutral C–H to C–C Bond Conversion" at "ViSYOChem2020", online symposium.

09-14/06/2019 "Uranyl Cation as Visible-Light Photocatalyst for C-C Bond Formation via Hydrogen Atom Transfer" at "ISOS2019 - "A. Corbella" International Summer School on Organic Synthesis", Gargnano (IT).  
*I was awarded a travel grant to attend this School and won the Best Oral Presentation by both the Audience and the Scientific Committee. This is one of the most prestigious International Summer Schools on Organic Chemistry held in Italy. I was also the leader of one group (5 persons) in the problem session (>12 groups) that was awarded the third place.*

19-21/11/2018 "Uranyl Cation as Visible-Light Photocatalyst for C-C Bond Formation via Hydrogen Atom Transfer" at "Merck & Elsevier Young Chemists Symposium 2018", Rimini (IT).

14-16/12/2017 "Antimony-oxo Porphyrins as Visible-Light Photocatalysts for Hydrogen Atom Transfer (HAT) Reactions in Organic Synthesis" at "Italian Photochemistry Meeting 2017", Perugia (IT).

25-27/10/2016 "Smooth Photocatalyzed Benzylation of Electrophilic Olefins via Decarboxylation of Arylacetic Acids" at "Merck Young Chemists Symposium 2016", Rimini (IT).

As a chair person:

18/12/2023 Emilia-Romagna Chemistry Day, Parma

12-13/10/2022 CHAIR winter school on Flow Chemistry, Amsterdam

26-30/06/2022 3rd International Conference on Hydrogen Atom Transfer, Rome

• **SCHOOLS & WORKSHOPS**

24-25/11/2019 School – "SCI\*C - Scuola in Comunicazione della Chimica", Rimini – *Travel Grant*

30/09/2019 Workshop – "Le Giornate di Chimica Organica a Pavia", Pavia

05/07/2019 Workshop – "VII Workshop Nazionale Gruppo Interdivisionale Green Chemistry", Padova

09-14/06/2019 School – "A. Corbella" International Summer School on Organic Synthesis", Brescia – *Travel Grant*

26/11/2018 Workshop – "Nuovi orientamenti in Chimica Organica", Milan

11/10/2018 Workshop – "Le Giornate di Chimica Organica a Pavia", Pavia

11/10/2017 Workshop – "Le Giornate di Chimica Organica a Pavia", Pavia

02/02/2017 Workshop – "I Giganti della Fotochimica", Bologna

06-10/06/2016 School – "7° Corso Nazionale di Introduzione alla Fotochimica", Bologna

10/05/2016 Workshop – "Tissue repair: from biochemical mechanisms to formulation approaches", Pavia

• **DISSEMINATION ACTIVITY**

26/09/2025 Stand "Nuove tecnologie per creare molecole" @ European Researchers' Night 2025 event. Audience: ~180 persons.

17/11/2024 Speaker at the roundtable "CHIMICA VERDE – dialogo tra accademia e industria per un futuro sostenibile" – Festival Mantova Scienza. Audience: ~100 persons.

27/09/2024 Held a presentation "Pillole di Plastica" at the Dept. of Chemistry, Life Science and Environmental Sustainability, University of Parma, Parma (IT) within the European Researchers' Night 2024 event. Audience: ~50 persons.

01/02/2020 – 11/02/2020 Involved in the Alchimica – La chimica degli esplosivi project at Scientific High School "Niccolò Copernico" in Pavia (IT). Alchimica – La chimica degli esplosivi is a project meant to explain youngsters the nature, classification and chemistry of explosives. This project was the result of individual initiative. Audience: ~250 persons.

24/09/2019 Held a presentation at Palazzo del Broletto, Pavia (IT) on the occasion of the International Year of the Periodic Table entitled "La Tavola Periodica: il "trip" di Mendeleev" within the European Researchers' Night 2019 event. Audience: ~100 persons.

20/02/2019 – 06/03/2019 Involved in the Nuova Chimica – Everyday Chemistry project at Scientific High School "Galileo Galilei" in Voghiera (IT). Nuova Chimica – Everyday Chemistry is a project meant to introduce youngsters to everyday chemistry. This project was the result of individual initiative. Audience: ~200 persons.

18/02/2019 – 28/02/2019 Involved in the Nuova Chimica – La chimica in cucina project at Scientific High School "Niccolò Copernico" in Pavia (IT). Nuova Chimica – La chimica in cucina is a project

meant to introduce youngsters to food chemistry. This project was the result of individual initiative. Audience: ~250 persons.

26/09/2018 Held a presentation at Palazzo del Broletto, Pavia (IT) entitled “Il gulfatto: come interagiscono gusto e olfatto” within the **European Researchers’ Night 2018** event. Audience: ~60 persons.

24/09/2017 – 23/12/2017 Took part to the Universitiamo ([www.universitiamo.eu](http://www.universitiamo.eu)) **crowdfunding** campaign *Light and Chemistry: Partners in the fight against Tumors* proposed by PhotoGreen Lab and promoted by the University of Pavia. Role: Member of the research group and co-organizer of fundraising events (Autunno Pavese: 24/09/17; Notte dei ricercatori: 29/09/17; Scienza in Piazza: 21/10/17; Live by *C’esco e i Musicanti di Brahma* for PhotoGreen Lab: 29/10/17; Pavia Lirica: 13/12/17; DAGDA Live Club – Concert by *MotelNoire*: 23/12/17).

26/10/2017 – 05/11/2017 Expo at Museo Luzzati, Genova (IT) presenting experiments designed to explain the importance of light in everyday life to teenagers in the frame of the **Festival della Scienza** event.

27/11/2017 – 11/12/2017 Involved in the *Nuova Chimica* project at Scientific High School “Niccolò Copernico” in Pavia (IT). *Nuova Chimica* is a project meant to introduce youngsters to non-traditional approaches to chemistry, such as photochemistry. This project was the result of individual initiative. Audience: ~200 persons.

#### • MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2023 – present Member of the Flow Chemistry Society (**Board of Directors** - Publication & Journal Committee)

2023 – 2024 Member of the American Chemical Society

2016 – present Member of the Italian Society of Chemistry (SCI)

2016 – present Member of the “Italian Group of Photochemistry” (GIF)

2016 – present Member of the “European Photochemistry Association” (EPA)

*In compliance with the Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff and I confirm to be informed of my rights in accordance to art. 7 of the above mentioned decree.*

*Date*  
October 25<sup>th</sup>, 2025

*Signature*



# LIST OF PUBLICATIONS

ORCID ID: 0000-0001-7114-267X Scopus ID: 57190816188 WoS: X-3549-2019

Citations: 3811 H index: 24 (Source: Google Scholar)

● first author ● corresponding author

- 1) L. Raineri, V. Morlacci, A. M. Constantin, A. Voronov, G. Maestri, N. Della Ca', L. Capaldo  
"Aliphatic aldehydes as CO surrogates via photocatalyzed hydrogen atom transfer"  
*Green Chem.* **2025**,  
[DOI: 10.1039/D5GC03981A](https://doi.org/10.1039/D5GC03981A)
- 2) J. Djossou, A. Aloia, **L. Capaldo**, D. D Snabilié, M. Regnier, J. H. A. Schuurmans, A. Monopoli, B. de Bruin, T. Noël  
"Rapid Methylation of Aryl Bromides Using Air-Stable DABCO-Bis (Trimethylaluminum) via Nickel Metallaphotoredox Catalysis"  
*Angew. Chem. Int. Ed.* **2025**, 64, e202508710  
[DOI: 10.1002/anie.202508710](https://doi.org/10.1002/anie.202508710)
- 3) F. Sacchelli, E. Quadri, L. Raineri, A. Jorea, M. Pessina, A. Lo Presti, N. Della Ca', D. Ravelli, **L. Capaldo**  
"A Telescoped Strategy for the Preparation of Five-Membered Hetero- and Carbocycles via Hydrogen Atom Transfer Photocatalysis in Flow"  
*ChemSusChem* **2025**, 18, e202501012  
[DOI: 10.1002/cssc.202501012](https://doi.org/10.1002/cssc.202501012)
- 4) M. Chiminelli, C. Galbardi, R. Maggi, F. Bigi, **L. Capaldo**, N. Della Ca', R. Viscardi, L. Marchiò, G. Maestri, M. Lanzi  
"Light-Mediated Binaphthyl Enhanced [2+ 2] Dearomatization of Heterocycles via an Energy-Transfer Process"  
*Org. Lett.* **2025**, 27, 8909–8914  
[DOI: 10.1021/acs.orglett.5c02507](https://doi.org/10.1021/acs.orglett.5c02507)
- 5) E. Cassera, V. Martini, V. Morlacci, S. Abrami, N. Della Ca', D. Ravelli, M. Fagnoni, L. Capaldo  
"A Decarbonylative Strategy to Enhance Efficiency and Regioselectivity in Photocatalyzed Hydrogen-Atom Transfer"  
*JACS Au* **2025**, 5, 3491–3499  
[DOI: 10.1021/jacsau.5c00530](https://doi.org/10.1021/jacsau.5c00530)
- 6) A. M. Constantin, F. Mele, M. Lanzi, G. Maestri, R. Maggi, N. Della Ca', L. Capaldo  
"Mechanochemical Aerobic Activation of Metallic Copper for the Synthesis of 1,4-Allenynes"  
*ChemSusChem* **2025**, 2500211  
[DOI: 10.1002/cssc.202500211](https://doi.org/10.1002/cssc.202500211)
- 7) F. Mele, A. Aquilini, A. M. Constantin, F. Pancrazzi, L. Righi, A. Porcheddu, R. Maggi, D. A. Cauzzi, G. Maestri, E. Motti, **L. Capaldo**, N. Della Ca'  
"Mechanochemical Activation of NaHCO<sub>3</sub>: A Solid CO<sub>2</sub> Surrogate in Carboxylation Reactions"  
*ChemSusChem* **2025**, 2500461  
[DOI: 10.1002/cssc.202500461](https://doi.org/10.1002/cssc.202500461)
- 8) F. Mele, A. M Constantin, A. Porcheddu, R. Maggi, G. Maestri, N. Della Ca', **L. Capaldo**  
"Photomechanochemistry: harnessing mechanical forces to enhance photochemical reactions"  
*Beilstein J. Org. Chem.* **2025**, 21, 458–472  
[DOI: 10.3762/bjoc.21.33](https://doi.org/10.3762/bjoc.21.33)
- 9) D. Schiroli, A. Voronov, F. Pancrazzi, N. Iraci, S. V. Giofrè, B. Macchi, V. Stefanizzi, R. Mancuso, B. Gabriele, P. P. Mazzeo, **L. Capaldo**, N. Della Ca'  
"Direct Access to  $\alpha,\beta$ -Unsaturated  $\gamma$ -Lactams via Palladium-Catalysed Carbonylation of Propargylic Ureas"  
*Adv. Synth. Cat.* **2024**, 367, e202401183  
[DOI: 10.1002/adsc.202401183](https://doi.org/10.1002/adsc.202401183)
- 10) A. Capucciati, L. Baraglia, E. Cassera, D. Merli, **L. Capaldo**, D. Ravelli  
"Selective Oxidation of Alcohols to Carbonyls under Decatungstate-Mediated Photoelectrochemical Conditions"  
*Chem. Eur. J.* **2024**, e202402986  
[DOI: 10.1002/chem.202402986](https://doi.org/10.1002/chem.202402986)
- 11) **L. Capaldo**, ● T. Wan, R. Mulder, J. Djossou, T. Noël  
"Visible Light-Induced Halogen-Atom Transfer by N-Heterocyclic Carbene-Ligated Boryl Radicals for Diastereoselective C(sp<sup>3</sup>)–C(sp<sup>2</sup>) Bond Formation"  
*Chem. Sci.* **2024**, 15, 14844–14850  
[DOI: 10.1039/D4SC02962C](https://doi.org/10.1039/D4SC02962C)
- 12) T. Wan, L. Ciszenski, D. Ravelli, **L. Capaldo**  
"Photoinduced Intermolecular Radical Hydroalkylation of Olefins via Ligated Boryl Radicals-Mediated Halogen Atom Transfer"  
*Org. Lett.* **2024**, 26, 5839–5843  
[DOI: 10.1021/acs.orglett.4c02034](https://doi.org/10.1021/acs.orglett.4c02034)
- 13) A. Voronov, A. Casnati, M. Hoch, F. Pancrazzi, P. P. Mazzeo, D. Merli, G. Maestri, P. P. Fehér, A. Stirling, **L. Capaldo**, ● N. Della Ca'  
"Photocatalyzed Aerobic Dearomatization of Naphthylamines under Visible-Light Irradiation"  
*Adv. Synth. Cat.* **2024**, 366, 4187–4193  
[DOI: 10.1002/adsc.202400281](https://doi.org/10.1002/adsc.202400281)
- 14) T. Wan, L. Capaldo●, J. Djossou, A. Staffa, F. de Zwart, B. de Bruin, T. Noël  
"Rapid and Scalable Photocatalytic C(sp<sup>2</sup>)–C(sp<sup>3</sup>) Suzuki–Miyaura Cross-Coupling of Aryl Bromides with Alkyl Boranes"  
*Nat. Commun.* **2024**, 15, 4028  
[DOI: 10.1038/s41467-024-48212-5](https://doi.org/10.1038/s41467-024-48212-5)
- 15) A. Voronov, **L. Capaldo**●  
"Merging photoinduced protic HAT and radical-polar crossover for olefin difunctionalization"  
*Chem. Catal.* **2023**, 3, 100847  
[DOI: 10.1016/j.chechat.2023.100847](https://doi.org/10.1016/j.chechat.2023.100847)
- 16) K. Anwar, **L. Capaldo**, T. Wan, T. Noël, A. Gómez-Suárez  
"Modular synthesis of congested  $\beta^{2,2}$ -amino acids via the merger of photocatalysis and oxidative functionalisations"  
*Chem. Commun.* **2024**, 60, 1456–1459.  
[DOI: 10.1039/D3CC06172H](https://doi.org/10.1039/D3CC06172H)
- 17) D. I. Ioannou, **L. Capaldo**, J. Sanramat, J. N. H. Reek, T. Noël  
"Accelerated Electrophotocatalytic C(sp<sup>3</sup>)–H Heteroarylation Enabled by an Efficient Continuous-Flow Reactor"  
*Angew. Chem. Int. Ed.* **2023**, 52, e202315881  
[DOI: 10.1002/anie.202315881](https://doi.org/10.1002/anie.202315881)
- 18) R. Costa e Silva, C. Vega, M. Regnier, **L. Capaldo**, L. Wesenberg, G. Lowe, K. Thiago de Oliveira, T. Noël  
"Electrosynthesis of Aryliminophosphoranes in Continuous Flow"  
*Adv. Synth. Catal.* **2023**, 366, 955–960  
[DOI: 10.1002/adsc.202300635](https://doi.org/10.1002/adsc.202300635)
- 19) **L. Capaldo**●, Z. Wen, T. Noël  
"A field guide to flow chemistry for synthetic organic chemists"  
*Chem. Sci.* **2023**, 14, 4230–4247  
[DOI: 10.1039/D3SC00992K](https://doi.org/10.1039/D3SC00992K)
- 20) T. Wan, **L. Capaldo**●, D. Ravelli, W. Vitullo, F. J. de Zwart, B. de Bruin, T. Noël  
"Photoinduced Halogen-Atom Transfer by N-heterocyclic carbene-ligated boryl radicals for C(sp<sup>3</sup>)–C(sp<sup>3</sup>) bond formation"  
*J. Am. Chem. Soc.* **2023**, 145, 991–999  
[DOI: 10.1021/jacs.2c10444](https://doi.org/10.1021/jacs.2c10444)
- 21) A. Luridiana, D. Mazzarella, **L. Capaldo**, J. A. Rincón, P. García-Losada, C. Mateos, M. O. Frederick, M. Nuño, W. J. Buma, T. Noël  
"The Merger of Benzophenone HAT Photocatalysis and Silyl Radical-Induced XAT Enables Both Nickel-Catalyzed Cross-Electrophile Coupling and 1,2-Dicarbofunctionalization of Olefins"  
*ACS Catal.* **2022**, 12, 11216–11225  
[DOI: 10.1021/acscatal.2c03805](https://doi.org/10.1021/acscatal.2c03805)
- 22) F. F. Özgen, A. Jorea, **L. Capaldo**, R. Kourist, D. Ravelli, S. Schmidt  
"The Synthesis of Chiral  $\gamma$ -Lactones by Merging Decatungstate Photocatalysis with Biocatalysis"  
*ChemCatChem* **2022**, 14, e202200855  
[DOI: 10.1002/cetc.202200855](https://doi.org/10.1002/cetc.202200855)
- 23) S. Bonciolini, T. Noël, **L. Capaldo**●  
"Synthetic applications of Photocatalyzed Halogen-radical mediated Hydrogen Atom Transfer for C–H bond functionalization"  
*Eur. J. Org. Chem.* **2022**, e202200417  
[DOI: 10.1002/ejoc.202200417](https://doi.org/10.1002/ejoc.202200417)
- 24) **L. Capaldo**●, T. Noël, D. Ravelli  
"Photocatalytic generation of Ligated Boryl Radicals (LBRs) from tertiary amine-borane complexes: an emerging tool in organic synthesis"  
*Chem. Catal.* **2022**, 2, 957–966  
[DOI: 10.1016/j.chechat.2022.03.005](https://doi.org/10.1016/j.chechat.2022.03.005)
- 25) **L. Capaldo**●, S. Bonciolini, A. Pulcinella, M. Nuno, T. Noël  
"Modular allylation of C(sp<sup>3</sup>)–H bonds by combining decatungstate photocatalysis and HWE olefination in flow"  
*Chem. Sci.* **2022**, 13, 7325–7331

26) [DOI: 10.1039/D2SC01581A](https://doi.org/10.1039/D2SC01581A)  
T. Wan, Z. Wen, G. Laudadio, **L. Capaldo**, R. Lammers, J. A. Rincón, P. García-Losada, C. Mateos, M. O. Frederick, R. Broersma, T. Noël  
“Accelerated and Scalable  $C(sp^3)$ -H Amination via Decatungstate Photocatalysis Using a Flow Photoreactor Equipped with High-Intensity LEDs”  
*ACS Cent. Sci.* **2022**, *8*, 51–56  
[DOI: 10.1021/acscentsci.1c01109](https://doi.org/10.1021/acscentsci.1c01109)

27) [DOI: 10.1007/s43630-021-00129-4](https://doi.org/10.1007/s43630-021-00129-4)  
R. Tinelli, D. Ravelli, A. Basso, S. C. Tarantino, **L. Capaldo**●  
“Catalyst-free  $[2+2]$  photocycloadditions between benzils and olefins under visible light”  
*Photochem. Photobiol. Sci.* **2022**, *21*, 695–803.

28) [DOI: 10.1021/acs.chemrev.1c00263](https://doi.org/10.1021/acs.chemrev.1c00263)  
**L. Capaldo**●, D. Ravelli, M. Fagnoni  
“Direct Photocatalyzed Hydrogen Atom Transfer (HAT) for Aliphatic C–H Bonds Elaboration”  
*Chem. Rev.* **2022**, *122*, 1875–1924

29) [DOI: 10.1002/ange.202104682](https://doi.org/10.1002/ange.202104682)  
T. Wan, **L. Capaldo**, G. Laudadio, A. V. Nyuchev, J. A. Rincón, P. García-Losada, C. Mateos, M. O. Frederick, M. Nuño, T. Noël  
“Decatungstate-mediated  $C(sp^3)$ -H Heteroarylation via Radical-Polar Crossover in Batch and Flow”  
*Angew. Chem. Int. Ed.* **2021**, *60*, 17893–17897  
[DOI: 10.1002/ange.202104682](https://doi.org/10.1002/ange.202104682)

30) [DOI: 10.1021/acs.orglett.1c00938](https://doi.org/10.1021/acs.orglett.1c00938)  
S. O. Scholz, J. B. Kidd, **L. Capaldo**, N. E. Flikweert, R. M. Littlefield, T. P. Yoon  
“Construction of Complex Cyclobutane Building Blocks by Photosensitized  $[2+2]$  Cycloaddition of Vinyl Boronate Esters”  
*Org. Lett.* **2021**, *23*, 3496–3501

31) [DOI: 10.1021/acs.orglett.1c00381](https://doi.org/10.1021/acs.orglett.1c00381)  
**L. Capaldo**● and D. Ravelli  
“Decatungstate as Direct Hydrogen Atom Transfer Photocatalyst for SOMophilic Alkylation”  
*Org. Lett.* **2021**, *23*, 2243–2247

32) [DOI: 10.1039/D1CC01012C](https://doi.org/10.1039/D1CC01012C)  
**L. Capaldo**●, L. L. Quadri, D. Merli, D. Ravelli  
“Photoelectrochemical Cross-Dehydrogenative Coupling of Benzothiazoles with Strong Aliphatic C–H Bonds”  
*Chem. Commun.* **2021**, *57*, 4424–4427

33) [DOI: 10.1021/acscatal.0c02250](https://doi.org/10.1021/acscatal.0c02250)  
**L. Capaldo**●, M. Ertl, M. Fagnoni, G. Knör and D. Ravelli  
“Antimony-Oxo Porphyrins as Photocatalysts for Redox-Neutral C–H to C–C Bond Conversion”  
*ACS Catal.* **2020**, *10*, 9057–9064

34) [DOI: 10.1039/D0GC01035A](https://doi.org/10.1039/D0GC01035A)  
**L. Capaldo**●, L. L. Quadri and D. Ravelli  
“Photocatalytic hydrogen atom transfer: the philosopher’s stone for late-stage functionalization?”  
*Green Chem.* **2020**, *22*, 3376–3396

35) [DOI: 10.1002/ejoc.202000144](https://doi.org/10.1002/ejoc.202000144)  
**L. Capaldo**● and D. Ravelli “The Dark Side of Photocatalysis: One Thousand Ways to Close the Cycle”  
*Eur. J. Org. Chem.* **2020**, 2783–2806

36) [DOI: 10.1002/ejoc.201900596](https://doi.org/10.1002/ejoc.201900596)  
T. Basile, **L. Capaldo**, D. Ravelli and Paolo Quadrelli  
“Photocatalyzed Generation of Nitrosocarbonyl Intermediates Under Solar Light Irradiation”  
*Eur. J. Org. Chem.* **2020**, *2020*, 1443–1447

37) [DOI: 10.1002/anie.201910348](https://doi.org/10.1002/anie.201910348)  
**L. Capaldo**●, L. L. Quadri, D. Ravelli  
“Merging Photocatalysis with Electrochemistry: The Dawn of a new Alliance in Organic Synthesis”  
*Angew. Chem. Int. Ed.* **2019**, *58*, 17508–17510

38) [DOI: 10.1007/s12210-019-00826-4](https://doi.org/10.1007/s12210-019-00826-4)  
C. Raviola, **L. Capaldo** and D. Ravelli  
“A tan for molecules: photocatalyzed synthesis with direct sunlight”  
*Rend. Lincei-Sci. Fis.*, **2019**, *30*, 485–495

39) [DOI: 10.1002/ijch.201900047](https://doi.org/10.1002/ijch.201900047)  
A. Aliprandi, **L. Capaldo**, C. Bobica, S. Silvestrini and L. De Cola  
“Effects of the Molecular Design on the Supramolecular Organization of Luminescent Pt(II) Complexes”  
*Isr. J. Chem.* **2019**, *59*, 892–897

40) [DOI: 10.1021/acscata.9b00287](https://doi.org/10.1021/acscata.9b00287)  
**L. Capaldo**●, D. Merli, M. Fagnoni and D. Ravelli  
“Visible Light Uranyl Photocatalysis: Direct C–H to C–C Bond Conversion”  
*ACS Catal.* **2019**, *9*, 3054–3058

41) [DOI: 10.1021/acs.chemrev.1c00263](https://doi.org/10.1021/acs.chemrev.1c00263)  
**L. Capaldo**●, D. Ravelli  
“Alkoxy Radicals Generation: Facile Photocatalytic Reduction of N-Alkoxyazinium or Azonium Salts”

42) [DOI: 10.1039/C9CC00035F](https://doi.org/10.1039/C9CC00035F)  
**L. Capaldo**●, R. Riccardi, D. Ravelli and M. Fagnoni  
“Acylic Radicals from Acylsilanes: Photoredox-Catalyzed Synthesis of Unsymmetrical Ketones”  
*ACS Catal.* **2018**, *8*, 304–309  
[DOI: 10.1021/acscatal.7b03719](https://doi.org/10.1021/acscatal.7b03719)

43) [DOI: 10.17374/CI.2017.99.2.48](https://doi.org/10.17374/CI.2017.99.2.48)  
**L. Capaldo**●, S. Garbarino, S. Protti, M. Fagnoni, and D. Ravelli  
“Processi fotocatalitici via anione decatungstato per la sintesi organica”  
La Chimica e l’Industria online, ANNO I, n°2, Marzo/Aprile **2017**  
[DOI: 10.17374/CI.2017.99.2.48](https://doi.org/10.17374/CI.2017.99.2.48)

44) [DOI: 10.1002/chem.201701346](https://doi.org/10.1002/chem.201701346)  
**L. Capaldo**●, M. Fagnoni and D. Ravelli  
“Vinylpyridines as Building Blocks for the Photocatalyzed Synthesis of Alkylpyridines”  
*Chem. Eur. J.* **2017**, *23*, 6527–6530

45) [DOI: 10.1002/ejoc.201601485](https://doi.org/10.1002/ejoc.201601485)  
**L. Capaldo**● and D. Ravelli  
“Hydrogen Atom Transfer (HAT): A Versatile Strategy for Substrate Activation in Photocatalyzed Organic Synthesis”  
*Eur. J. Org. Chem.* **2017**, 2056–2071

46) [DOI: 10.1021/acs.joc.6b00984](https://doi.org/10.1021/acs.joc.6b00984)  
**L. Capaldo**●, L. Buzzetti, D. Merli, M. Fagnoni, and D. Ravelli  
“Smooth Photocatalyzed Benzylation of Electrophilic Olefins via Decarboxylation of Arylacetic Acid”  
*J. Org. Chem.* **2016**, *81*, 7102–7109