



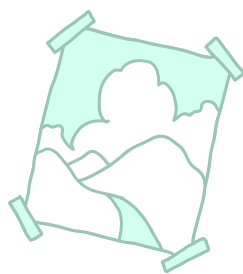
28TH DOCTORAL SCHOOL OF CHEMICAL SCIENCES DAY

THURSDAY, APRIL 23RD 2026
8:30 am - 5:30 pm

AGORA, DOMAINE DU HAUT-CARRÉ
43 rue pierre noailles, talence

OVERVIEW OF THE DAY :

Poster sessions
2nd year PhD students



Oral communications
3rd year PhD students

Presentation from the
SCF and ADOC student
association



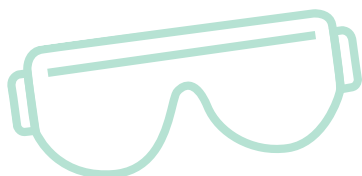
Science Speed Meeting

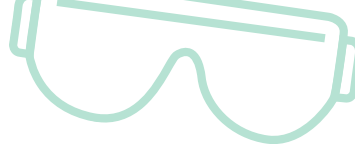
Plenary Talk : From Light to Chirality: Sustainable
Strategies for the Construction of Complex Molecules

DR. GÉRALDINE MASSON

CNRS Silver Medal 2025

**DR CNRS | Institut de Chimie des
Substances Naturelles**





DAY PROGRAMME

8:30 AM

Opening speech

8:45 AM

Association presentation
(SCF, ADOC,...)

9:05 AM

First poster session
(1 -> 31)

9:50 AM

Coffee break

10:05 AM

3rd year oral
communications

11 AM

Second poster
session (32 -> 62)

11:45 AM

Science Speed Meeting

12:30 PM

Lunch
(only for registered
people)

2 PM

Plenary talk
Dr. Géraldine Masson

3:15 PM

Third poster session
(63 -> 92)

4 PM

Coffee break

4:15 PM

3rd year oral
communications

5 PM

Feedback

5:15 PM

Award ceremony and
closing discussion



Société Chimique de France



École doctorale
Sciences chimiques / université
de BORDEAUX



PLENARY TALK

FROM LIGHT TO CHIRALITY: SUSTAINABLE STRATEGIES FOR THE CONSTRUCTION OF COMPLEX MOLECULES

GÉRALDINE MASSON

Institut de Chimie des Substances Naturelles (ICSN), CNRS UPR 2301, Université Paris-Saclay, France
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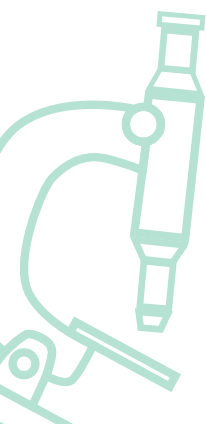
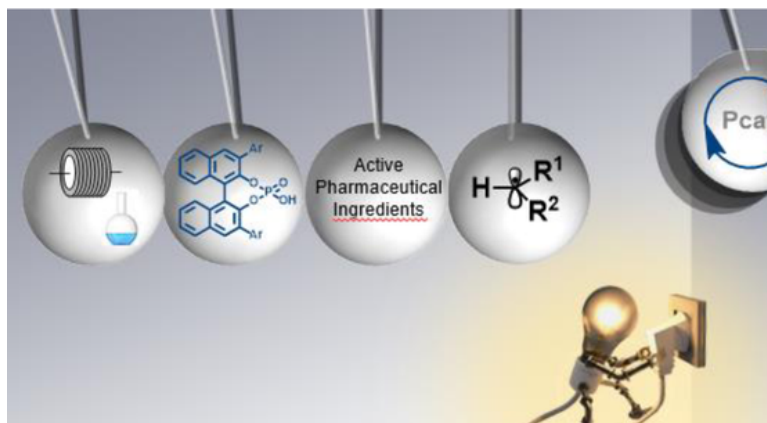
This presentation will describe our recent advances in the development of sustainable synthetic strategies toward biologically active molecules and active pharmaceutical ingredients (APIs),^{1a} with a particular focus on the complementary roles of visible-light activation and asymmetric organocatalysis.^{1b,c} In a first part, visible-light-driven radical transformations, including photocatalyst-free

decarboxylative borylation and Truce–Smiles rearrangement, will be presented.^{2,3} These methods enable the efficient incorporation of boron motifs and the selective introduction of aryl groups at challenging positions, providing access to α -aminoboron derivatives and β -functionalized amides under mild conditions.

In a second part, we will illustrate how asymmetric organocatalysis^{1b,c,4} can be leveraged for the enantioselective synthesis of natural product derivatives, with a focus on the total synthesis of Exotine A and B.⁵ Particular attention will be given to key stereocontrolled steps and the strategic design enabling the efficient construction of these chiral architectures. Overall, this lecture will highlight how these distinct catalytic strategies enable the efficient and sustainable synthesis of high-value bioactive compounds.

References:

- (1) Selected reviews: (a) Courant T.; Masson, G. J. *Org. Chem.* 2016, 81, 6945. (b) Varlet, T.; Masson, G. *Chem. Commun.* 2021, 57, 4089. (c) Bouchet, D.; Varlet, T.; Masson, G. *Acc. Chem. Res.* 2022, 55, 3265
- (2) Serafino, A.; Pierre, H.; Le Vaillant, F.; Boutet, J.; Guillamot, G.; Neuville, L.; Masson, G. *Org. Lett.* 2023, 25, 9249.
- (3) (a) Ma, W.-Y.; Leone, M.; Derat, E.; Retailleau, P.; Reddy, C. R.; Neuville, L.; Masson, G. *Angew. Chem. Int. Ed.* 2024, e202408154. (b) Di Terlizzi, L.; Nicchio, L.; Montinho-Inacio, E.; Tiwari, N.; Derat, E.; Retailleau, P.; Fagnoni, M.; Neuville, L.; Protti, S.; Masson, G. *JACS Au* 2025, 5, 4972.
- (4) (a) Naulin, E.; Lombard, M.; Gandon, V.; Retailleau, P.; Van Elslande, E.; Neuville, L.; Masson, G. *J. Am. Chem. Soc.* 2023, 145, 26504. See also (b) Varlet, T.; Matišić, M.; Van Elslande, E.; Neuville, L.; Gandon, V.; Masson, G. *J. Am. Chem. Soc.* 2021, 143, 11611. (c) Varlet, T.; Gelis, C.; Retailleau, P.; Bernadat, G.; Neuville, L.; Masson, G. *Angew. Chem., Int. Ed.* 2020, 59, 8491.
- (5) In preparation.





3RD YEAR PHD STUDENTS ORAL COMMUNICATIONS

MORNING SESSION

10:05 am - **Parfait Kenfack Ymbe (CRPP)** | Adsorption, enzymatic and antimicrobial activities of a myeloperoxidase-glucose oxidase bifunctional chimera on silicone model surfaces.

10:20 am - **Ainara Pellicer (ISM)** | Development of polymer-supported chiral thiourea catalysts for asymmetric reactions

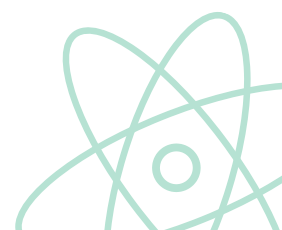
10:35 am - **Ramzi Chellali (CBMN)** | Mechanistic Insights into the Inhibition of Amyloid Aggregation by the sRAGE VC1 Domain

AFTERNOON SESSION

4:15 pm - **Enida Nushi (ISM)** | Iodine fate in atmospheric droplets: heterogeneous reactivity and role of interface

4:30 pm - **Adeline Cœugnet (CBMN)** | Membrane matters: how lipid environment shapes membrane and signaling effect of cannabinoid type 1 receptor ligand

4:45 pm - **Jouke A. Fleege (CRPP)** | Assembling Magnetic and/or Conductive Metal-Organic Frameworks using Redox-Active Bridging Ligand Terephthalonitrile



1	Pauline	Trousselier	ARNA	Self-Assembled nanocarriers for nucleic acids delivery in DIPG
2	Lina	El Aissati	CRPP	2D Particle assembly and light diffraction of a self-assembled metasurface
3	Théo	Rowden	LOF	A self-driven microfluidic laboratory to explore coacervation
4	Chloé	Humbert	LOF	Skin-on-chip for rapid and targeted assessment of chemical toxicity
5	Vincent	Mariani	LCPO	Fluorescent oligonucleotides-based polymeric nanoparticles for biosensing
6	Valentin	Alvarez	ICMCB	Towards the improvement, for a high level radioactive waste container, of alumina ceramics elaborated via gelcasting process through a fundamental study
7	Anagha	Kallisseri Parambil	IECB	NMR spectroscopy to study protein assemblies on the bacterial membrane
8	Fantine	Negny	LCPO	Conductive polymer Inks for Photovoltaic applications
9	Zoé	LECOMTE	CRPP	Soft and porous metamaterials for pasive daytime radiative cooling
10	Matt	Hugget	ISM	All-Atom QM Simulation of SHG in Photoswitchable Azobenzene Monolayers
11	Maude	Badion	LCPO	New methodologies for polyurethane synthesis by in-situ isocyanate generation from dioxazolones
12	Lucio	Di Nicola	IECB	Cone-Shaped Foldamers as Open-Cavity Receptors for Carbohydrate Recognition
13	Brynn	SUNDBERG	CBMN	Top-Down and Bottom-Up Proteomics Reveal the Modification Landscape of Aged Tempera Model Paints
14	Elisabeth	RICHTER	ICMCB	Towards the application of Prussian blue analogues for sodium-ion batteries
15	Antonio	De la Torre Pérez	ISM	Control of Surface Electrical Potentials on Ge-Sb-S-Na Glasses by Thermal Poling
16	Anissa	Djebaili	LCPO	Scavenger polymersomes as nanotrapping agents for the regulation of excessive production of reactive electrophilic species
17	Viet-Ha	PHAN	ARNA	Exploring Poly(oxazoline) Coating in Lipid Nanoparticles for siRNA Delivery to Lung Mucus Penetration
18	Intissar	Driouech	ICMCB	Polyanionic framework for polar and magnetic materials design: In Search of Multifunctional Oxides
19	Laurie	ROLHION	ISM/LOF	Fluorescent molecular rotors as microviscosity probes for complex fluids mapping
20	Yuheng	Fu	ISM	Photo-Assisted Bipolar Electrochemistry for the Synthesis of Multifunctional Patchy Particles
21	Yara	Moawad	CRPP	Role of Dispersion Type, Fat Phase, and Fiber Nature in the Texture and Stability of Model Chocolate Emulsions
22	Rose	GAZEAU	CRPP	Faba Bean as a Promising Emulsifying and Gelling Alternative to Soy
23	Enora	Trubuil	ISM	New Strategies Toward Synthesis of isocyanates and urethanes from aldehydes
24	Joana	Pereira	ARNA	Cuprous Ions binding to NucleoLipids: towards the use of therapeutic DNA materials for Alzheimer's disease
25	Mathilde	Desportes	LCPO	Chemical Recycling and Upcycling of cross-linked polymers
26	José Antonio	Fojo Vazquez	CRPP	Mimicking Exocytosis: Electrically Triggered Release from Vesicle-in-Vesicle Systems
27	Axelle	VIREPINTE	ISM / NSysA	Imaging and Detection of Bacteria by Electrochemiluminescence
28	Francesca Romana	LAURO	ISM / NSysA	Heterobimetallic Chiral Complexes as a Route to Enhance Circularly Polarized Electrochemiluminescence
29	Médric	Passadat	LCPO	Conception of high-performance biosourced polymer materials derived from terpenes
30	Dhrubajyoti	Sadhukhan	ICMCB	High throughput Experimental for Battery Materials
31	Fadzai	MUNDEMBE	Cyvi, ISM	Beyond Environmental Impact: Coupling Criticality and LCA in Electric Motor Manufacturing

32	Flavie	Gaudin	ARNA	Novel biomaterial for combating antibiotic resistance in bone regeneration: insights from oligonucleotide-mineral interactions
33	Ye	GENG	EPOC	Understanding the ecodynamic of emerging contaminants into the aquatic environment: focus on transformation products of organic micropollutants
34	CISSE	Soumaila	CBMN	Bioinspired vein-on-a-chip system for in vitro tracking of unexplained blood clots
35	Margot	Zambon	ISM	Chemical synthesis of molecular probes bearing polyphenolic stilbenoids for the study of their bacterial protein interactions
36	Tianyu	Huang	LCPO	Development of polymer nanoparticles for the treatment of glioblastoma
37	Freda	Quaye	Cyvi, ISM	End-of-Life Modelling Approaches for Wind Turbine Systems
38	Mattéo	Prud'homme	ICMCB	Syntheses and characterizations of tungsten oxide-related compounds for photoelectrochemical water splitting
40	Clara	CATROS	LCPO	Optimization of Bright Fluorescent Polymer Nanoparticles for efficient FRET based biosensing
41	Ugo	Serdan	ISM / LOMA	Metal oxide based heteronanostructures for heterogenous photocatalysis in liquid phase
42	Nadin	Darwiche	CBMN	Characterization of α -synuclein inclusions in neurons and tissues using AFM, AFM-IR and Raman imaging
43	Widi	KURNIAWATI	ICMCB	Highly Concentrated Ether-Functionalised Ionic Electrolytes for Stable Lithium Metal Batteries: Compatibility with Phosphate and Layered Oxide Cathodes
44	Lila	Barrios-Collette	CRPP	Storing bits of information in colloidal particles: towards amorphous computing
45	Rosario	Moreno Mora	CBMN	Surface-Immobilized Metal Complexes in Bone Tissue Engineering
46	Jiatai	ZHANG	ISM	New Access to Urethanes, Ureas and Polyurethanes Through Radical Processes
47	Andrea Valentina	LOPEZ CASTILLO	CBMN	Lipid modulation of the β -arrestin signaling pathway following activation of Dopamine D2 receptor by ligands
48	Emilie	Diomar	LCPO	Synthesis of photo-polymerizable and self-foamable oligo-hydroxyurethanes for the accelerated discovery and optimization of sustainable foams
49	Enzo	Sedru	LCPO	Synthesis and formulation of new polyesters and assessment of their ability to self-assemble into nanometric vesicles
50	Charles	Dumont de Chassart	CBMN	Using aromatic oligoamides to tune the catalytic activity of a pyridoxal-phosphate mimic through non-covalent interactions.
51	Baptiste	GEFFE	ISM	Methodological development of a [2+2] cyclodimerization of ortho-quinonoids: Towards the total synthesis of sclerocitrin
52	Fatima	MERHI	ISM	Ni-functionalized GaAs photocathodes for solar-driven water splitting
53	Alizée	Morin	LCPO	Photo-caged Amines for Light-Induced Polymerization of Non-Isocyanate Polyurethanes
54	Emma	BOHUON	ICMCB	Multi-scale investigation of microbial ecosystems from deep-sea vents
55	Laura	Bonnezeze	CBMN	N-terminal chemistry tunes PSMa3 aggregation and cytotoxicity
56	Carolina	Castaneda Fernandez	LCPO	L-Proline Assisted Ring-opening polymerization for Antimicrobial Copolypeptoids
57	Song Wei	Loo	CRPP	Engineering Dimensionality through Stoichiometry in Pyrazine-Bridged Group 2 Metal Halides
58	Nabadeep	Bezborra	CRPP	Toward Titanium-Pyrazine Layered Coordination Networks
59	Baptiste	Sauner	CBMN	Synthesis of photosensitive bolalipids for controlled drug release
60	Sandy	Al Bardawil	ARNA	Decoding the Signal: Orthogonal LC-MS Approaches for Oligonucleotide Analysis
61	Elisa	D'ARRIGO	ISM / NSysA	Three-Dimensional Imaging of Living Spheroids via Electrochemiluminescence Microscopy
62	Foramben	Prajapati	ICMCB	Spin Crossover Molecular Ceramics for Barocaloric Refrigeration : Advances through Cool-SPS

63	Maura	Martinez Morales	LCPO	ROPISA-driven design of polypeptide-based nanoparticles for advanced therapeutics
64	Julien	Neyrat	ICMCB	Development of transition metal nitride thin films by R-HiPIMS as an alternative to hard chromium coatings
65	Alex	Delhumeau	ISM	Free Volume Modeling for Diffusion Behavior of CH ₄ in Atomistic Kerogen Models Across The Continuum from Swollen to Rigid
66	Gaëtan	Barth	ISM-NSysA	Toward a new route for water remediation via microgel stabilized emulsions
67	Marco	Bertuolo	IECB/CBMN	Hierarchical Chirality Transfert in perylen diimide derivate by Silica Nanohelix
68	Buritica	Sofia	LCPO	Combining Group Transfer and Ring-Opening Polymerizations for Poly(dialkylmuconate)-b-Polypeptide Block Copolymer Synthesis
69	Lemor	Tom	LCPO	Biodegradation and erosion of petro- and biosourced polymer particles in aquatic media: From micro- to nanoplastics
70	Sahil	Mulewar	ARNA	Lipid Bi-conjugated ASO (Antisense oligonucleotides) Self-assembly for BBB (Blood-brain barrier) Permeability
71	Boschi	Lucie	LCPO	Upcycling of Mixtures of Aliphatic Diols and Diacids through either bulk polymerization or polymerization in Aqueous Media
72	Margaux	Rodriguez	LCPO	Elastin-Like Polypeptide Extracellular Matrix Mimics for Artificial Skin Models
73	Raphael	BERINGUE	LCTS	Oxidation behaviour of a UHTC at 2000°C under various high heat flux conditions
74	Jean-Baptiste	CHASSAC	LCTS	Corrosion of environmental barrier coatings by molten sands: old and actual generation
75	Eric	Grevin	LCTS	Modelling Service Life of SiC/BN/SiC CMCs under Aerospace Application Conditions
76	Augeard	Clémence	ICMCB / ISM	Recycling of Rare Earth based Environnemental Barrier Coating (EBC) : Towards a circular economy
77	Agathe	Ecoutin	CBMN	Solid-state NMR investigation of the role of the cystine-rich effector CrpA on Aspergillus fumigatus cell wall organization
78	Louise	Ambard	ICMCB	Cationic and anionic substitutions in iron oxide Ruddlesden-Popper phases as oxygen electrode for SOEC application
79	Jatin	Bhumarkar	CRPP	Synthesis of electro-conductive Brownian microrods by electrospinning
80	Sompairac	Pacôme	LCPO	Bio-Based pi-conjugated polymers for organic photovoltaics
81	Matthieu	Ramond	CEA / ICMCBA	tool for functional selection of SOEC electrolyte materials
82	Wadgaonkar	Yash Ganesh	LCPO	Hybrid Poly(hydroxyurethane)s as Encapsulation Materials for Photovoltaic: Towards Bio-Based Solutions
83	Pranoti	Patil	ICMCB	Surface Engineering of Next-Generation Positive Electrode Materials for Li-ion Batteries via Supercritical Fluid Chemical Deposition
84	Hayaki	Shimizu	CBMN/IECB	Enhancing Chiroptical Properties through Hierarchical Architectures of Mesoscopic Chiral Nanostructures
85	Bachar	Kassem	ICMCB	Development of a demonstrator to study the hydrolysis reaction under real conditions
86	MICHELET	Aurélie	LCPO	Design of new difunctional initiator for the anionic polymerization of conjugated dienes
87	Joshua Hong En	Chen	CRPP	Development of an Image-Based Droplet Microfluidic Sorting Platform for Yeast Phenotype Screening
88	Ulysse	POINTUD	ISM	Ecotoxic impact of mining: which LCA methods and tools are the most relevant?
89	Liubov	Gerasimova	ICMCB	Bioproduction of Au nanoparticles by micro algae Euglena gracilis
90	Margaux	Rodriguez	LCPO	Design and evaluation of a synthetic extracellular matrix mimic based on elastin-like polypeptides for artificial skin models
91	Isabella	GUTIERREZ-ZABALA	CBMN	Identification and Characterization of Microplastics in Marine Fish and Molluscs from the Bay of Biscay
92	Diego	Reyes Briseño	CEA/ICMCB	Development of thin film negative electrodes for "Li-free" solid-state batteries

