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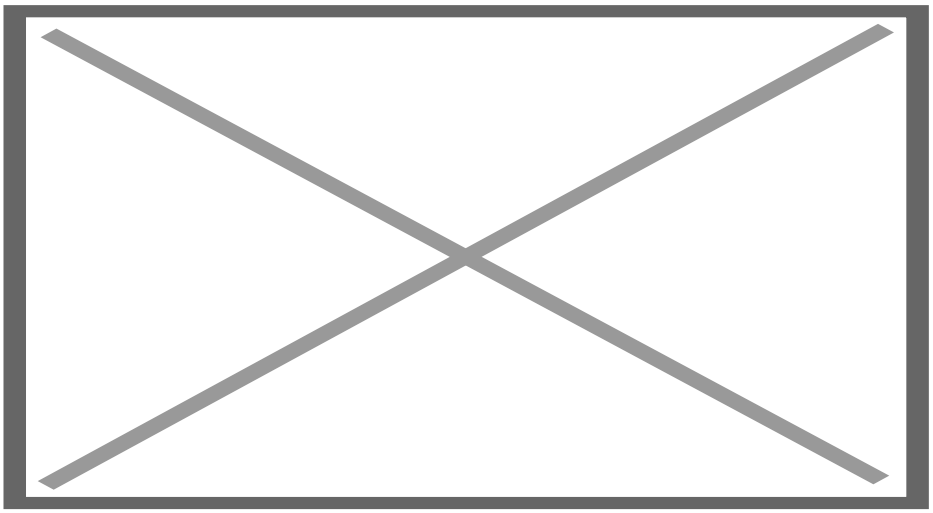
M2 Molecular Chemistry and Interfaces

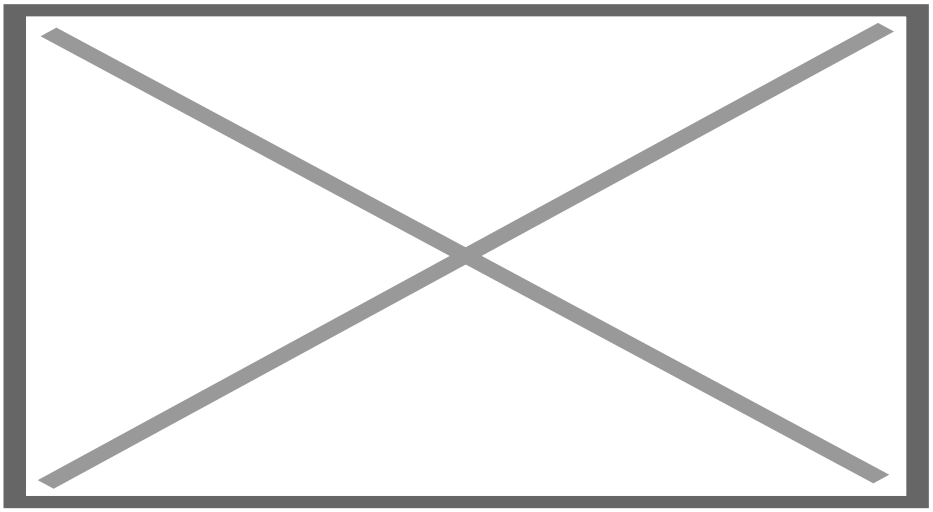
Master's degree
Specialisation Chemistry
Enrolment type
Formation initiale
Language(s) of instruction
English

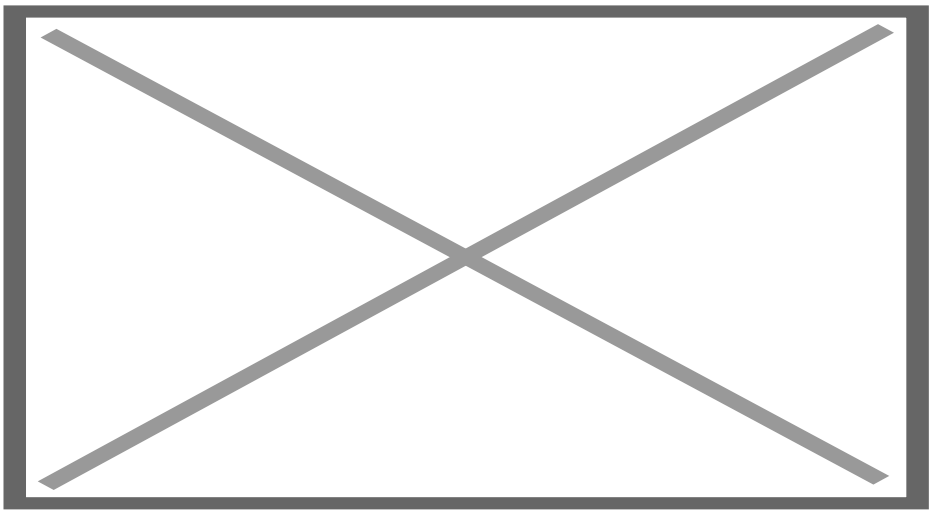
The Master 2 in Molecular Chemistry and Interfaces (MOCHI) is a master's degree jointly accredited by ENS Paris-Saclay and the Institut Polytechnique de Paris (IPP). Taught entirely in English, this program in molecular chemistry and its interfaces is geared toward research and development for various applications in biology, health, the environment, digital chemistry, and materials science.

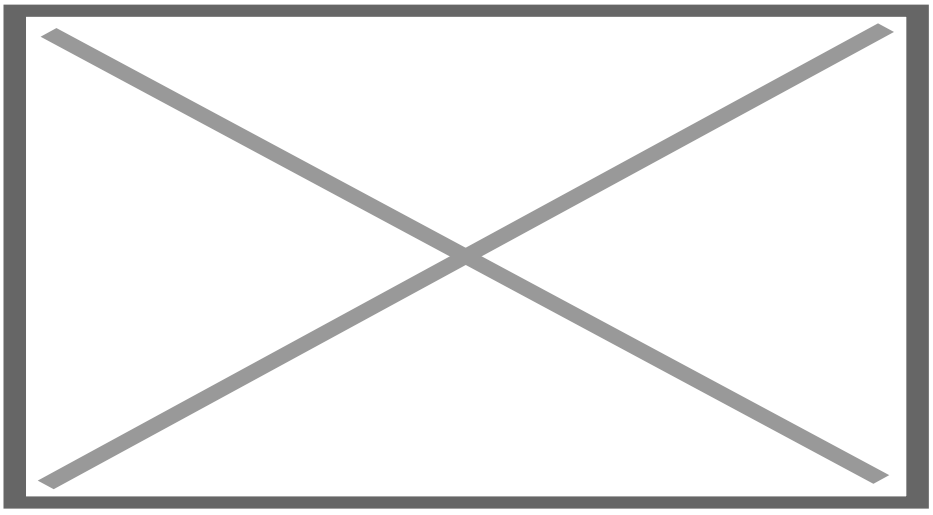
Taught entirely in English, this program offers a compulsory core curriculum including a practical module, supplemented by à la carte training consisting of a choice of 10 course units from a panel of 17, allowing each student to create their own profile in molecular chemistry and its interfaces with biology, health, the environment, digital chemistry, and materials science. The theoretical training (4 months) will be supplemented by a bibliographic project and a six-month research internship.

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Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

- Present scientific results in English, orally and in writing, be able to communicate information and results to different audiences.
- Proficiently use bibliographic research tools, collect and analyse articles.
- Develop an experimental approach as part of a research project; learn to work independently, with a rigorous scientific approach, in compliance with hygiene & safety regulations.
- Develop a scientific strategy to design, synthesize and evaluate new molecules or new access routes to compounds of interest; acquire good command of synthesis and characterisation techniques in an experimental context.
- Develop a strategy for modeling the structure, reactivity and/or propriety of molecules or materials, using computing tools to predict and process spectral data.
- Understand the biological or physical-chemical properties of molecules or materials.

Objectives

This program aims to train students to a very high scientific level, enabling them to adapt to a wide range of issues in molecular chemistry, as well as in related fields such as biology, health, the environment, and materials science (as doctoral students or in the job market).

Débouchés

Career prospects

After a Master's or Master's + PhD: engineer (R&D, control, production, etc.)
After a Master's or Master's + PhD: researcher or lecturer
After a Master's or Master's + PhD: engineer (research and development, control, production, etc.) in the fields of health, pharmaceuticals, agri-food, biotechnologies, instruments and reagents, cosmetics, pollution control and the environment.
After a Master's + PhD: researcher or lecturer
After a Master's or Master's + PhD: engineer (Research & Development, control, production, etc.)
Raw materials project manager or researcher

After a Master’s degree: Research analyst
chemical-environmental engineer
Project officer sustainable development
Research officer in sustainable development
Assistant Product Manager
Design engineer in the industrial sector
Design engineer in the research / scientific sector
Design engineer industry / public research
Project Manager / Researcher in biodiversity and sustainable development
Academic staff
Research & Development Engineer
Research and Innovation Manager
Project Manager
Scientific communication, technology watch or technology transfer Officer
Research & Development Engineer
Cultural outreach professions
Research or Design Engineer
Research professions
Lecturer (after a PhD)
Head of mission / projects
Design-Production Engineer
Research officer

Further Study Opportunities

Master of Education and Teaching Professions
PhD in Chemistry / Biology
Interdisciplinary PhD in Sustainability Science (many disciplines possible)
Students with a 2nd year Master's degree have the possibility to pursue doctoral research.
Students in this track can turn to research at the end of the 2nd year Master's.

Engineering, research and development
the curriculum also enables students to enter the corporate world directly after their graduation, in positions such as Data Scientist, Data Analyst or Machine Learning Engineer.
R&D researcher or data modelling and analysis expert in leading-edge companies or laboratories.
Head of project/mission

Calendar

Start of programme (indicative date)
04/09/2026
End of programme (indicative date)
30/07/2027
Admission

Admission Route

Public Administration
Chemistry

Capacity

Available Places

25

Target Audience and Entry Requirements

Applicants must have completed a Master 1 degree in Molecular Chemistry or equivalent. A solid knowledge of molecular chemistry and a basic knowledge of general chemistry, physical and theoretical chemistry, and chemistry for biological systems will be necessary to follow this Master's 2 program.

Période(s) de candidature

Inception Platform

From 01/03/2026 to 30/06/2026

Supporting documents

Compulsory supporting documents

Copy diplomas.

Copy of passport.

Letter of recommendation from a trainee.

Certificate of English level (compulsory for non-English speakers).

Details of the UEs taken for candidates outside the M1 Paris Saclay.

Additional supporting documents

Rank of previous year and size of the promotion.

Programme

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/pract class
Outstanding molecules and organic materials	3	Semestre 1	18	2				
Charger le détail Molecular Modelling	3	Semestre 1	16	4				
Charger le détail Chemical biology and photopharmacology	3	Semestre 1	18	2				
Charger le détail Advanced digital chemistry	3	Semestre 1	18	2				
Charger le détail Multiscale materials modelling	3	Semestre 1	18	2				
Charger le détail Eco-conception of materials	3	Semestre 1	18	2				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/pract class
Charger le détail Eco-conception of molecules	3	Semestre 1	18	2				
Charger le détail Outstanding inorganic materials	3	Semestre 1	18	2				
Charger le détail Physical chemistry of low-dimensional materials	3	Annualisé	18	2				
Charger le détail Advanced medicinal chemistry	3	Semestre 1	18	2				
Charger le détail Medicinal organic chemistry	3	Semestre 1	18	2				
Charger le détail Analytical chemistry	3	Semestre 1	18	2				
Charger le détail Chemistry beyond the planetary boundaries	3	Semestre 1	18	2				
Charger le détail Rare earths and actinides for technologies	3	Semestre 1	18	2				
Charger le détail Optical sensors for environmental and health applications	3	Semestre 1	18	2				
Charger le détail UE libre Catalogue S1	2.5	Semestre 1						
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distan learn cour
Advanced practical	3	Semestre 1			20				

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	di le c
Bibliographic report	2	Semestre 1							

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distan learn cour
Research internship	25	Semestre 2							

Charger le détail

Teaching Location(s)

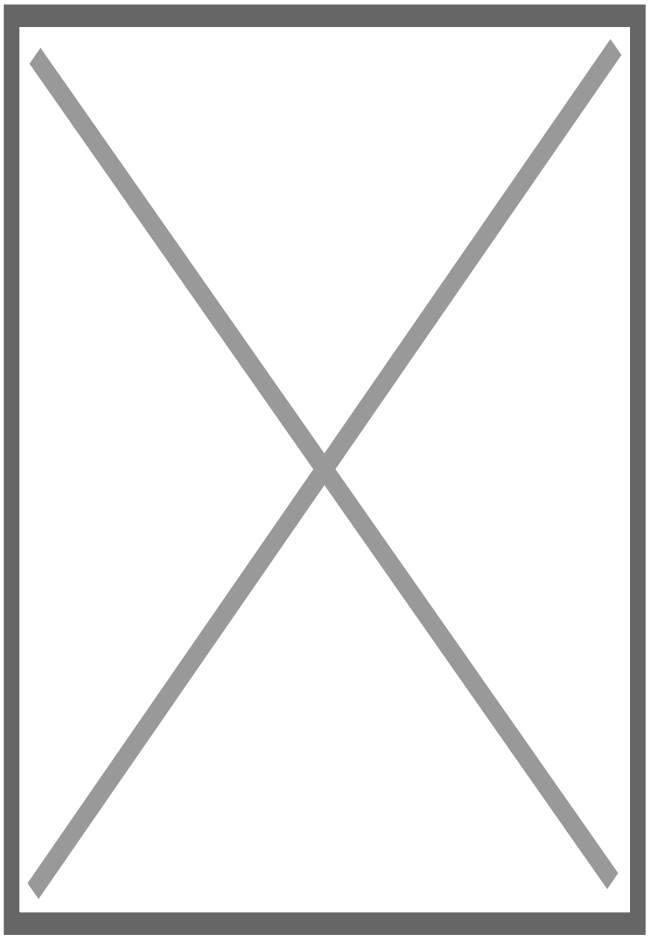
GIF SUR YVETTE
PALAISEAU

Academic Partner(s)

Ecole Polytechnique, ENSTA

Training campus

Javascript est requis pour visualiser cette carte.



Saclay Moulon

Saclay / Gif-sur-Yvette / Orsay
Bus 4606 / 4609 / 4611 / 5154
RER B Le guichet
Voir
Student restaurant (CROUS)
Library
Sports facilities
Student residence

Contact

- **Joanne Xie**

http://www.universite-paris-saclay.fr/formation/master/chimie/m2-molecular-chemistry-and-interfaces