Université Paris-Saclay

Share

Email destinataire :

Vous devez renseigner un email valide

Envoyer

Une erreur est survenue. Merci de réessayer ultérieurement

Le mail de partage a bien été envoyé.

Add to Compare

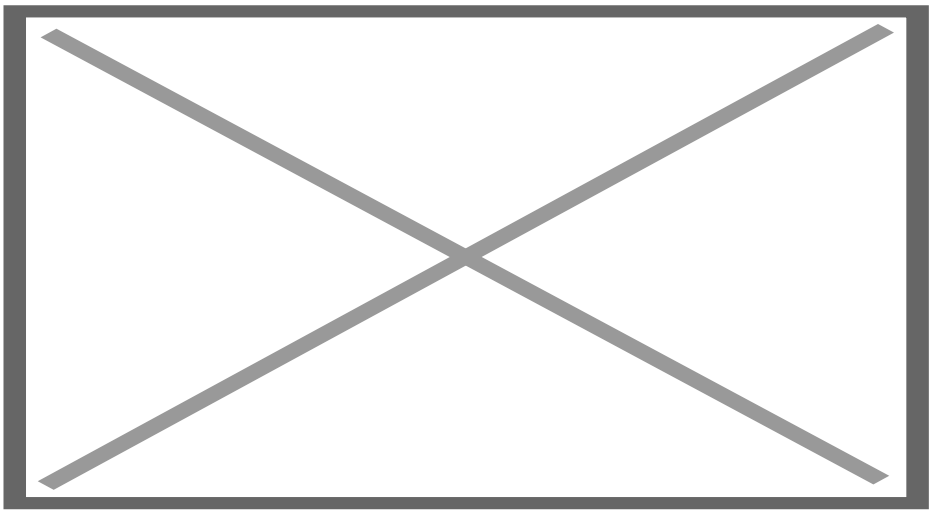
M2 Inorganic, Physical and Solid Chemistry

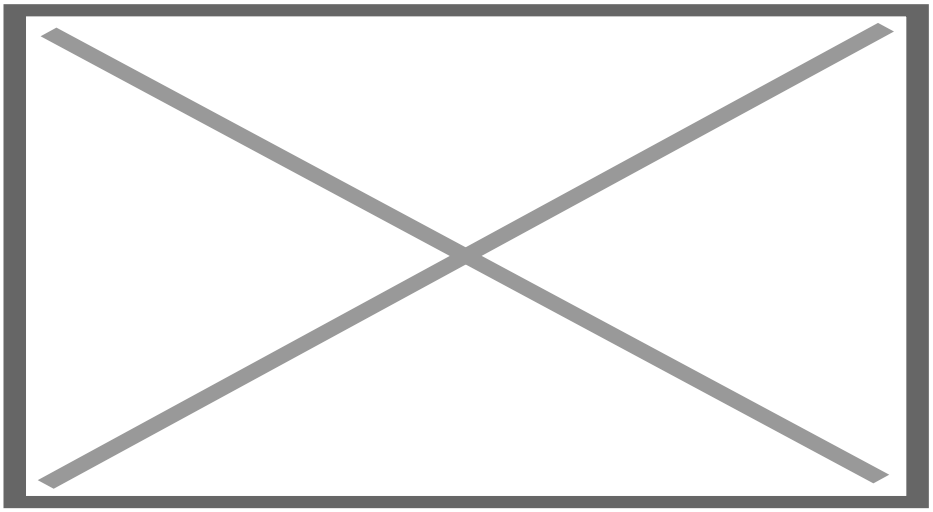
Master's degree
Specialisation Chemistry
Enrolment type
Formation initiale
Formation continue
Language(s) of instruction
English
French

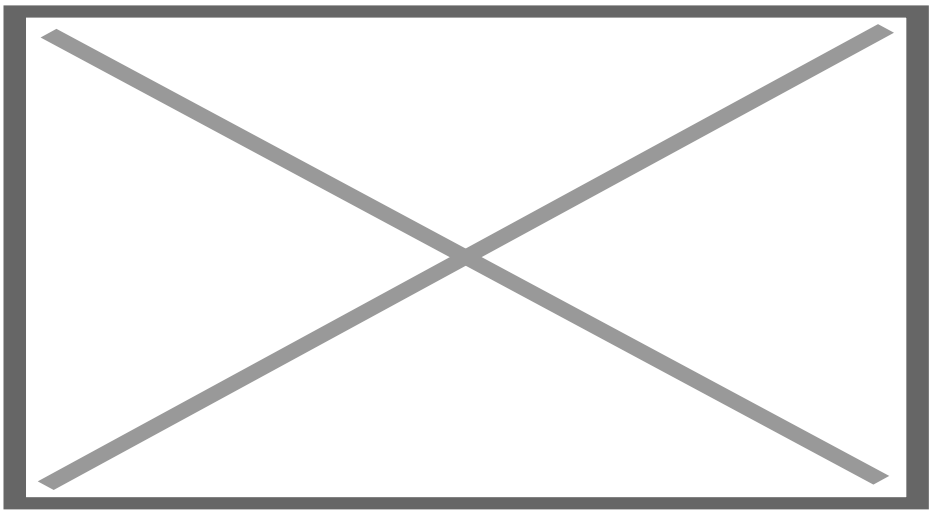
The M2 Inorganic, Physical, and Solid State Chemistry (ChIPS) program is fully customizable, focused on fundamental research that addresses contemporary societal, environmental, and energy challenges.

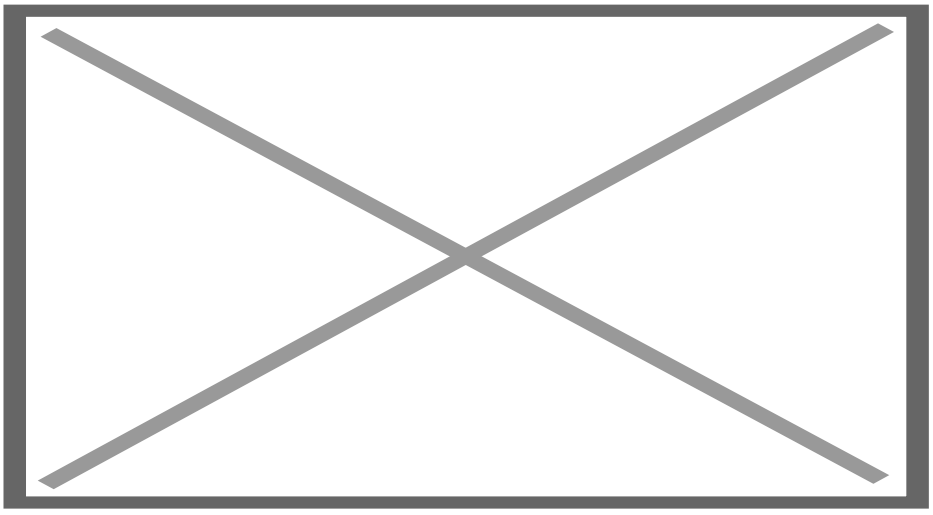
Course supported by the internationally renowned research potential embodied by the laboratories of University Paris-Saclay and the instrumental facilities located nearby.
Emphasis is given on the personalization of the Master's program (M1 + M2), since students do choose not only their research topics and teams (internship), but also all 3rd semester teaching units (1st semester M2) from a panel of around fifteen or so subjects in inorganic chemistry, physical chemistry, theoretical chemistry theoretical chemistry and solid state chemistry. The course also aims at developping students' ability to conduct research projects, gain experience in teamwork and pass on their knowledge and know-how.
The notions of innovation and creation will also be combined with those of law and intellectual property as part of a cross-disciplinary skills unit.

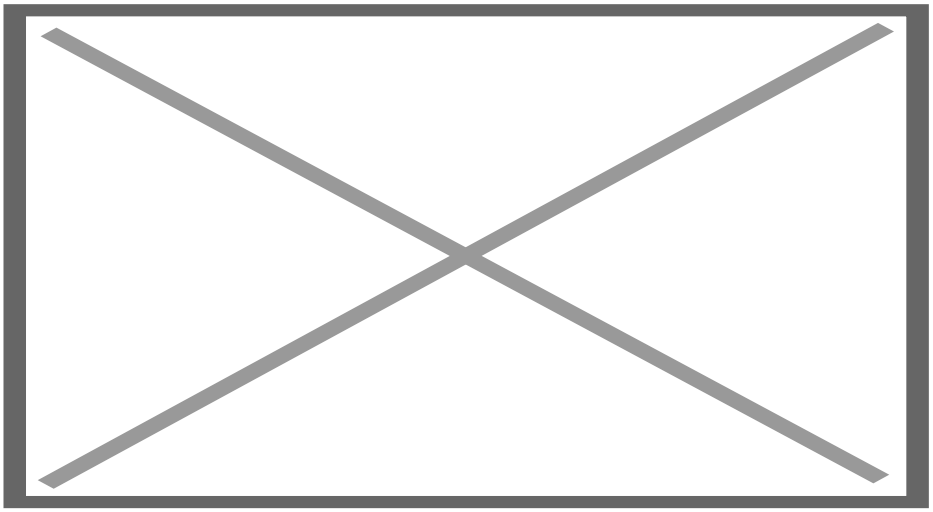
Télécharger la fiche détaillée
Apply Now











Information

- Overview
- Application requirements
- Schedule

Présentation

Objectives

The aim of this program is to provide the knowledge required for an in-depth understanding of complex molecular systems, whether synthetic or of biological origin, molecular-based materials and nano-objects, in order to meet current challenges in the fields of health, energy, environment and information. In this Master 2 program, the following issues will be addressed:
(i) synthesis concepts, physical and chemical properties, and spectroscopic and imaging characterizations of inorganic systems at different scales,
(ii) understanding and modeling molecular properties (structure, spectroscopies, kinetics, dynamics, thermodynamics, reactivity), with particular emphasis on exploiting the synergy between theory & simulations and experiments,
(iii) manipulation of chemical and physico-chemical phenomena on small time and/or space scales.

Débouchés

Career prospects

R&D Engineer

chemical-environmental engineer
Research or Design Engineer
Associate professor in secondary school and college
Associate professor in the 2-year preparatory course for a competitive exam, at a university or at a scientific institute

Further Study Opportunities

PhD in Chemistry / Biology
PhD
R&D researcher or data modelling and analysis expert in leading-edge companies or laboratories.

Calendar

Start of programme (indicative date)
31/08/2026
End of programme (indicative date)
28/09/2027
Admission

Admission Route

Chemistry
Physics, Chemistry

Capacity

Available Places

40

Target Audience and Entry Requirements

Master 1 or equivalent program in Chemistry, Physical Chemistry...

Période(s) de candidature

Inception Platform

From 01/04/2026 to 14/07/2026

Supporting documents

Compulsory supporting documents

Motivation letter.

All transcripts of the years / semesters validated since the high school diploma at the date of application.

Curriculum Vitae.

Additional supporting documents

Certificate of French (compulsory for non-French speakers).

VAP file (obligatory for all persons requesting a valuation of the assets to enter the diploma).

Supporting documents :
- Residence permit stating the country of residence of the first country
- Or receipt of request stating the country of first asylum
- Or document from the UNHCR granting refugee status
- Or receipt of refugee status request delivered in France
- Or residence permit stating the refugee status delivered in France
- Or document stating subsidiary protection in France or abroad
- Or document stating temporary protection in France or abroad.

Programme

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practica class
UE à choix bloc 1								
Plateforme analytique (RMN, spectroscopies, spectrométrie de masse)	6	Semestre 1	36	6	9			
Charger le détail								
Molecular modeling	6	Semestre 1	10	10				
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed	Lecture/practical	directed study/practica class
Grands instruments, plateformes expérimentales : spectroscopies et analyse Charger le détail	6	Semestre 1	24					
Nanomatériaux: plasmonique, microscopies et inititation à la recherche Charger le détail	6	Semestre 1	18	3.5	17			
Magnétisme moléculaire, du solide et électronique de spin Charger le détail	6	Semestre 1	36					
Matériaux multi-fonctionnels poreux, hybrides et moléculaires Charger le détail	6	Semestre 1	36					
Chimie théorique - Modélisation des propriétés électroniques Charger le détail	6	Semestre 1	32	0	16			
Chimie de coordination pour l'énergie et l'environnement Charger le détail	6	Semestre 1	36					
Méthodes électrochimiques Charger le détail	6	Semestre 1	48					
Physique et Chimie des Surfaces et fonctionnalisation	6	Semestre 1	18	12				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practica class
Charger le détail								
Techniques spectroscopiques appliquées aux biomolécules	6	Semestre 1	13	3	36			
Charger le détail								
Elaboration des solides fonctionnels	6	Semestre 1	24		12			
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d le
UE obligatoire du bloc 2									
Droit, propriété intellectuelle, valorisation et innovation	3	Semestre 2	8		9				
Charger le détail									
Projet personnalisé									
UE libre catalogue S1 et S2	2.5	Semestre 2							
Charger le détail									
UE libre S2	2.5	Semestre 2							
Charger le détail									
UE libre S2	3	Semestre 2							
Charger le détail									
Outstanding molecules and organic materials pour M2CHIPS	3	Semestre 1	18	2					
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Optical sensors for environmental and health applications pour M2CHIPS	3	Semestre 1	18	2					
Charger le détail									
Vers un label Européen (1,5 ECTS)	1.5	Semestre 2							
Charger le détail									
Vers un label Européen (2 ECTS)	2	Semestre 2							
Charger le détail									
Vers un label Européen (3 ECTS)	3	Semestre 2							
Charger le détail									
Médiation de la Recherche (1 ECTS)	1	Semestre 2							
Charger le détail									
Médiation de la Recherche (2 ECTS)	2	Semestre 2							
Charger le détail									
Projet scientifique personnalisé	6	Semestre 2							
Charger le détail									
Renforcement disciplinaire par une UE sup. bloc 1	6	Semestre 1							
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distan learni cours

Stage	21	Semestre 2

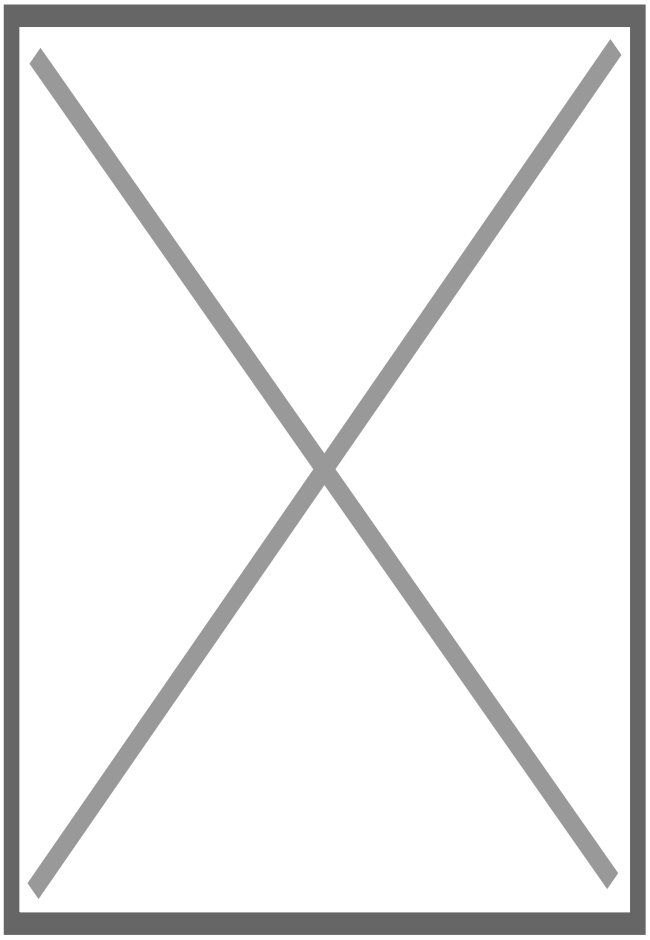
Charger le détail

Teaching Location(s)

ORSAY
GIF SUR YVETTE
PARIS 15
EVRY
PALAISEAU
VERSAILLES

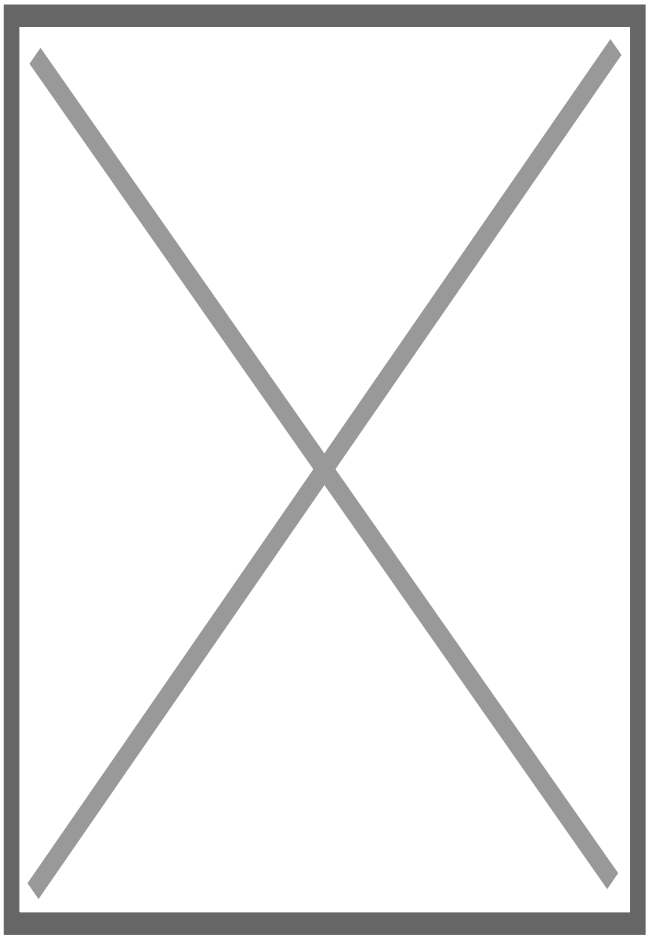
Training campus

Javascript est requis pour visualiser cette carte.



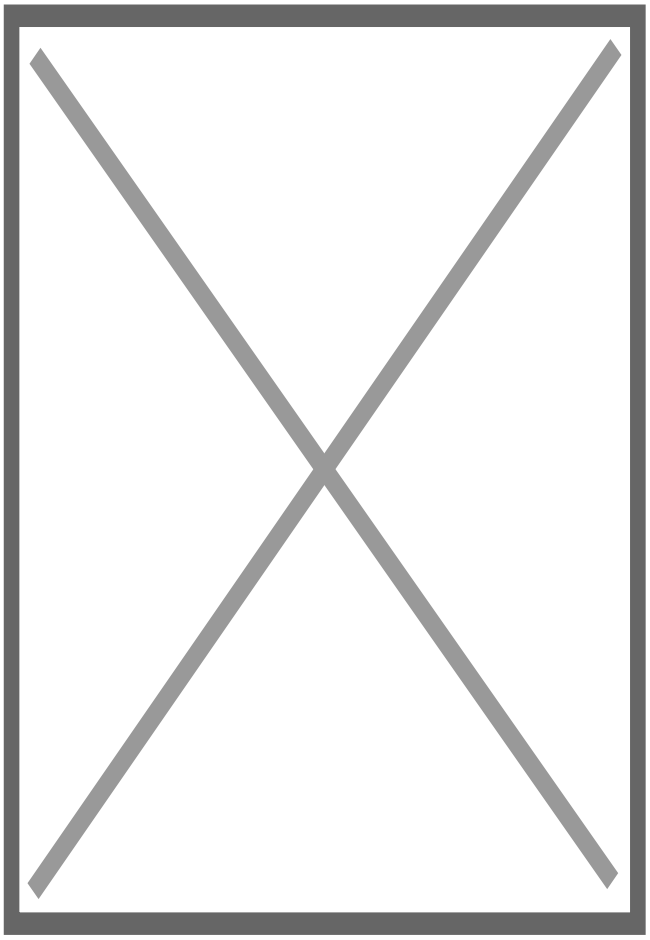
Saclay Moulon

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



Evry

Evry
Bus 9105, 4504
RER D Evry Courcouronnes
Voir
Student restaurant (CROUS)
Library
Student residence
Sports facilities



Versailles

Versailles
Bus 8 - 10 - 13 - 105 - 108 - 471
Versailles Rive Droite - Ligne L
RER C Versailles Château Rive gauche
Voir
Student restaurant (CROUS)
Library
Student residence

Contact

- **Anne LAFOSSE**
- **Frederic Banse**

http://www.universite-paris-saclay.fr/formation/master/chimie/m2-chimie-inorganique-physique-et-du-solide