

# Support

## Faculties and Doctoral schools

### University of Strasbourg



### University Haute-Alsace



### Doctoral schools of the University of Strasbourg and University Haute-Alsace

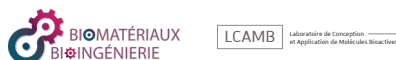


## Associated research institutes

### Campus of Cronenbourg



### Medecine and pharmacy campuses



### Campus of Mulhouse



### More than 75 industrial partners, among which



# Contacts

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📄 [more info on hifunmat.unistra.fr](https://moreinfoonhifunmat.unistra.fr)

## Hierarchical & Functional Materials for health, environment & energy | HiFunMat

The Interdisciplinary thematic institutes of the University of Strasbourg & Inserm funded under the **Excellence Initiative** program

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**ITI HiFunMat**, an excellence cluster of the Universities of Strasbourg & Mulhouse (FR), offers to Master students a supplementary training in materials science across physics, chemistry and engineering.

The ITI HiFunMat Graduate School is based on 3 Master programs and includes 3 Faculties and 2 Engineering Schools.

The graduate school has the ambition to educate the new generation of scientists, sought after by industrial & academic research facilities, to push forward the development of next generation materials. Thus creating favorable conditions to strengthen (international) exchanges with leading research labs and industries.

# Graduate School

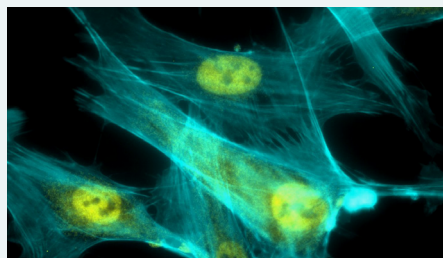
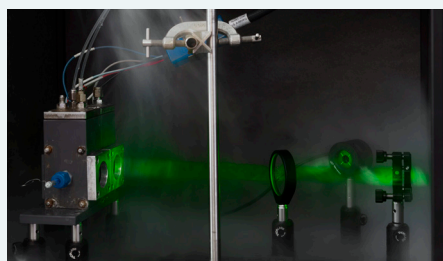
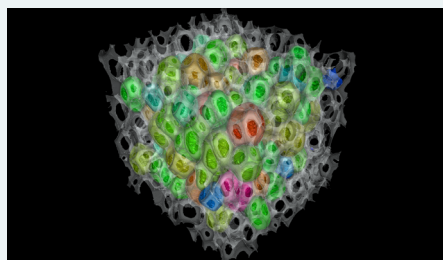
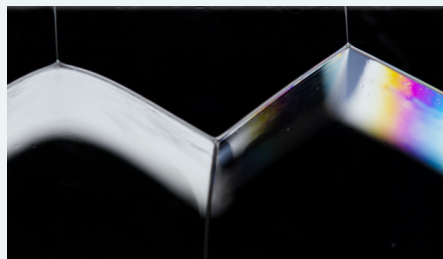
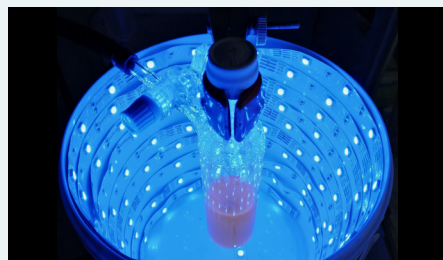
## Our label

The HiFunMat label consists of training, complementary to the 3 Master programs, on skills essential in materials science and common to all 'HiFunMat' research fields, to meet the strong demand in academia & industry for leading scientists with a solid background in materials science. This training comprises **18 additional ECTS** (~100h) of training (**English** as teaching language) across chemistry, physics, biology and advanced materials. Training involves **lectures and seminars**, hands-on **laboratory experience**, and a **summer school**. Students will have the opportunity to design their own curriculum and to gain rich experiences in various technical and soft skills (expressed as a personal and unique portfolio of competences), on which to build their future careers. Moreover, the **contact with industrials** will be fostered by different activities. At the end, students will have a strong network in academia & industry.

## Research fields

- **Field 1:** Design and synthesis of elementary molecular building blocks
- **Field 2:** Development of finely controlled surfaces to obtain adaptable and reversible properties
- **Field 3:** Development of hierarchically structured materials, with fine control at different scales
- **Field 4:** Development of new strategies for shaping, modifying and characterizing materials by various types of radiation
- **Field 5:** Design of new biomimetic, biodegradable, active, self-healing, responsive, life-like materials

📄 more info on [iti-hifunmat.unistra.fr](http://iti-hifunmat.unistra.fr)



# Program

- 📄 M.Sc. Degree+ HiFunMat label
- 📄 Strong education – research link
- 📄 Large scientific and industrial network
- 📄 Multidisciplinary program
- 📄 Strong interaction with industry
- 📄 Focus on soft skills

## 1<sup>st</sup> year

### → Introductory course

Interdisciplinary training on characterization methods for polymers, small molecules and composite materials

### → HiFunMat labeled elective courses

Elective courses, labeled by HiFunMat, can be chosen from the three Master programs

### → Concepts and methods course

Hands-on laboratory experience : lectures, practical courses including peer-to-peer learning modules, research facility and industrial site visits

### → 6 Weeks internship in a HiFunMat laboratory

Possibility of collaborating in inter-laboratory multidisciplinary projects

## 2<sup>nd</sup> year

### → Advanced course

High-level interdisciplinary training on a theme crossing the 5 HiFunMat research fields.

### → HiFunMat labeled elective courses

Elective courses, labeled by HiFunMat, can be chosen from the three Master programs

### → Research and professional development

Personal & professional development : hot-topic seminars, summer school, networking, meetings with industrials, good scientific practice, soft skills, intercultural aspects

### → 6 Months research or industry internship

Possibility of collaborating in inter-laboratory multidisciplinary projects

# Apply now

## Our offer:

- ♦ €600,- / month scholarships for all students (10 students in M1, 13 students in M2)
- ♦ 100 hours (18 ECTS) of additional training
- ♦ Involvement of researchers, technicians and engineers + Mentor program

## Admission criteria:

- ♦ To be admitted by one of the following Master programs:

- M.Sc. Chemistry  
([UFR de chimie](#), [UHA](#), [ECPM](#), [ENSCMu](#))
- M.Sc. Materials science and engineering  
([UFR P&I](#), [UHA](#))
- M.Sc. Physics  
([UFR P&I](#))

- ♦ Proficient in English (B2 level)
- ♦ Students will be selected for an interview based on grades and motivation

## Application process

- 1) Choose and apply to a M.Sc. degree from the [3 support M.Sc. programs](#) via Campus France and / or eCandidat
- 2) Consult the [application procedure](#) to the ITI HiFunMat Graduate School on our website
- 3) Fill in the online [application form](#)

📄 2 years **M.Sc. Degree** with **HiFunMat label** centered around the theme of sustainable hierarchical and functional materials with applications in health, environment and energy