

Nanochemistry and Nanoobjects

Cyrille Train (cyrille.train@lncmi.cnrs.fr)

SEMESTRE 3 – SEMESTER 3 30 ECTS

Cours obligatoires – Compulsory courses 24 ECTS

- **PCHI531B - 9 ECTS - Engineering of molecular assemblies, nanomaterials and interfaces**
Elisabeth Blanquet (G-INP), Elisabeth Djurado (G-INP), Peter Reiss (CEA), Guy Royal (UJF) and Cyrille Train (UJF) 54h Cours/12h TP
- **PPHY538U- 6 ECTS – Characterization of (bio) molecular interactions, nanomaterials, surfaces and interfaces**
Frederic Dubreuil (UJF), Bruno Gilles (CNRS), Pierre Labbé (UJF), Jacques Pécaut (CEA), Jean-Luc Putaux (CNRS), Yvonne Soldo(CNRS),
42h Cours
- **PPHY538K - 3 ECTS – Surface functionalization.**
Pierre Labbé (UJF), Didier Delabouglise (G-INP) 24h cours
- **PPHY538M - 6 ECTS**
Formation expérimentale. Research training
Chantal Tardif (CEA), Philippe Peyla (UJF) 3x5 days spent in a lab (3 different labs)

Cours optionnels – Broadening courses 6 ECTS

- **PPHY531C - 3 ECTS – Nanocomposites materials**
Saïd Sadki (CEA) 24h cours
- **PPHY538H - 3 ECTS – Polymers for micro-nano-electronics**
Saïd Sadki (CEA) 24h cours
- **PPHY538L - 3 ECTS – Nanotechnology and safety**
Chantal Tardif (CEA) 24h cours
- **PPHY538P - 3 ECTS - Quantum transport and molecular electronics.**
Vincent Bouchiat (CNRS) 24h cours
- **PPHY538T - 3 ECTS - Near Field Microcopy.**
Florence Marchi (UJF) and Hervé Courtois (UJF) 12h cours 12h TP
- **Any other Master courses (if compatible with the time table) 3ECTS**

SEMESTRE 4 – SEMESTER 4 30 ECTS

- **PSTG541A- 21 ECTS – (30 ECTS Erasmus Mundus)**
Master Thesis
4 monthes internship in a lab.
- **PSCI541E - 3 ECTS**
Biobliography on the master thesis.
- **PPHY541B- 3 ECTS** This course is held during Semester 3
Introduction to nanostructures, elaboration of nano-objects.
24h Cours
- **PANG541A - 3 ECTS** This course holds during Semester 3
English if level<B2 (24h Cours)

OR

- **PTRA5400 - 3 ECTS** This course holds during Semester 3
Another UE (french for foreigners for non french speaking people) (24h Cours)