

Master Nanosciences et nanotechnologies

Nanofabrication

Responsable	Descriptions	Informations
Luc FAVRE luc.favre@univ-amu.fr	Code : S58PH3NDQ1 Nature : Domaines : Sciences et Technologies	Composante : Faculté des Sciences Nombre de crédits :

LANGUE(S) D'ENSEIGNEMENT

Anglais

CONTENU

Description of Top-Down technics for the nanofabrication:

- Definition and history of the Top-Down approach. Comparison with the Bottom-up approach: avantages and disadvantages.
- Lithography: main principles, optical lithography (DUV, EUV, RX), electronic lithography, ion etching
- Nanoimprint, nanomolding, nanostamp
- Scanning probe microscopy patterning: AFM & STM

Some of these technics will be studied in practical works, together with growth processes and characterization technics: CVD, RTP, ion etching, MBE, Dip-Coating, nanoimprint, laser ablation.

Topics :

- Top-Down technics
- CVD, RTP, ion etching: fabrication of ordered quantum
- EJM : fabrication of strained layers SiGe/Si
- Sol-Gel : fabrication of anti-reflective layers
- Laser ablation

VOLUME HORAIRE

- Volume total: 25 heures
- Cours magistraux: 9 heures
- Travaux dirigés: 4 heures
- Travaux pratiques: 12 heures

CODES APOGÉE

- SNNC03DJ [ELP]

M3C

Aucune donnée M3C trouvée

POUR PLUS D'INFORMATIONS

[Aller sur le site de l'offre de formation...](#)



Dernière modification le 29/06/2023