



<https://pta-grenoble.com>

More than 10 years of R&D
micro and nanofabrication



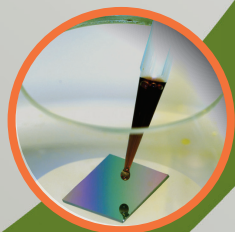
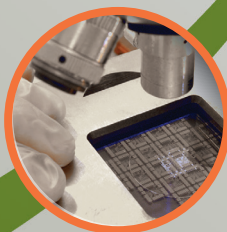
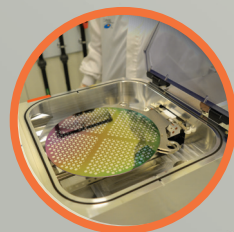
The “plateforme technologique amont” (PTA) is an advanced upstream research facilities started 10 years ago by LTM and INAC, two research centres with internationally recognized expertise in micro- and nanofabrication.

PTA facilities:

- 10 years of expertise in micro and nanotechnologies
- 700 m² cleanroom : class 1000 and 100
- Easy and fast access for projects
- Self-supported use or subcontracting by PTA staff

Specifications:

- Various substrates and size : from few mm² to 100 mm wafers, rigid or flexible substrates
- Multi-materials : semiconductors, organic, magnetic, piezoelectric...
- Multi-applications: micro and nanoelectronics, spintronics, photonics, MEMS, optics, bioChips...



EQUIPMENTS

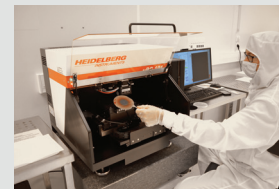
DEPOSITION (metals and oxides)

- Evaporator
- PVD
- PECVD
- PEALD
- LPCVD



LITHOGRAPHY

- E-beam
- UV and Deep UV
- Laser
- Nanoimprint



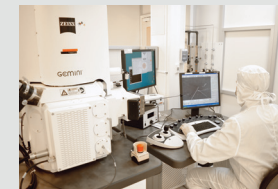
ETCHING

- ICP
- Deep RIE
- IBE
- CMP
- HF Vapor
- Wet etching



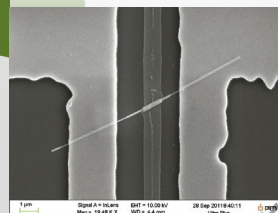
METROLOGY

- SEM
- Ellipsometry
- Profilometry
- Optical microscopy
- Reflectometry



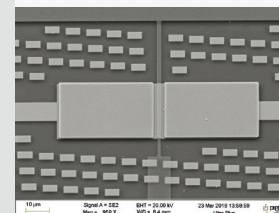
ACHIEVEMENTS

NANOELECTRONICS



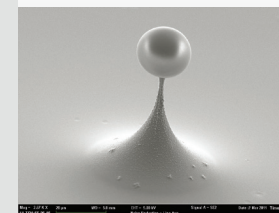
Gate-all-around FET based on SiGe Nanowires

SPINTRONICS



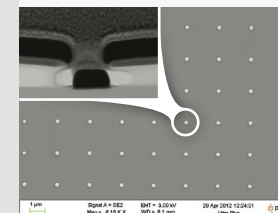
Integration of Magnetic Random Access Memory cell (80 nm) at the level of metal 3 on CMOS

PHOTONIC



Ultra high Q silica microcavities on Si pillar

OPTICS



Au 70 nm nanopillars for miniaturized spectrophotometers



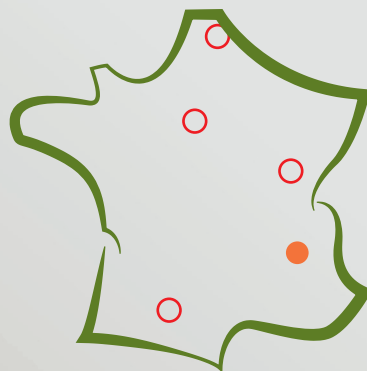
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The **PTA** platform is part of the french CNRS Renatech network and is located on Minatec.



Project submission : www.renatech.org/projet



Graphisme : CNRS Alpes, SCom LRF / © LTM

