

Our services

Processes of micro and nanofabrication



YOUR NEEDS

- Functionalizing materials or reducing their lateral sizes to a nanometric scale to modify their properties
- Electrical measurements on thin films
- Excitation and detection of acoustic waves
- Creation of nanostructures (top-down)
- Measurements on single nano-object
- Microsystem sensors
- "Lab on a chip"

OUR SOLUTIONS

- Magnetic tunnel junctions
- Surface acoustic wave devices
- Transistors for organic electronics
- Microfluidic devices for impedance spectroscopy
- Microfluidic devices for handling and heating
- Devices for handling magnetic walls
- Thermoelectric elements
- Piezoelectric membranes
- Characterization of unique thermoelectric nanowires
- Contacts on semiconducting structures
- Spin electronics: Tunnel junctions, wall devices
- Micro and Nanomagnetism: Walls in nanostructures, geometric frustration micro-fluidics
- Mechanics of nanostructures: Membranes
- Surface acoustic waves: Innovative materials, filters
- Sensors, Phononics, Optronics and Semiconductors, Silicon Nanocrystals, BGaIN Photodetector
- Nano-objects: Nanotubes, molecular conductors

KEYWORDS

Spin Electronics, Tunnel Junctions, Wall Devices, Micromagnetism, Nanomagnetism, Walls, Nanostructures, Geometric Frustration, Micro-Fluidics, Mechanics of Nanostructures, Membranes, Surface Acoustic Waves, Innovative Materials, Filters, Sensors, Phononics, Optronics, Semiconductors, Silicon Nanocrystals, BGaIN Photodetector, Nano-objects, Nanotubes, Molecular Conductors, GaN

RELATED SKILLS

- Cutting all substrates with an accuracy of 10µm
- Magnetic measurements
- Probing, controlling and functionalizing the magnetism of matter
- Electronic architectures
- Characterization of surfaces and interfaces:
 - Electron microscopy
 - X-ray diffraction

OUR REFERENCES

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