NAMIS
International Research Group

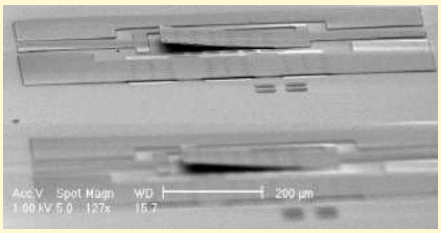
XLIM Research Institute (XLIM)

Staff: **205 researchers, professors, lecturers, engineers and technicians**
208 PhD students, 55 post-docs and temporary staff

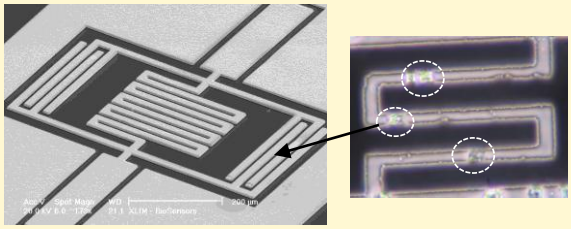
Research in the microsystems fields : Micro-electronics, micro-systems, RF-MEMS components and reliability, MOEMS, related technologies.

Research topics in Micro and NanoSystems

- RF-MEMS components and subsystem
- RF-MEMS reliability and zero level packaging
- Innovative material for reconfigurable applications
- Fast MOEMS micro-mirror
- Silicon micro-machined components (membrane and BAW)
- RF micro-sensor for bio-applications
- Interface electronics & integrated circuits
- Nanoclusters integration in polymer for solar cells
- Carbon Nanotubes based electronics



RF MEMS switch based on air gap technology



Electromagnetic sensor for biological cell identification

Technology

- 200 m^2 (in 2010) clean rooms class 10000 & 100
- Standard UV lithography
- e BEAM, thermal and PVD deposition tools
- UV Pulsed Laser deposition (multi material mixing)
- Si & SOI surface and bulk micromachining
- Slicon Etching: KOH, TMAH,
- Supercritical CO_2 drying
- Electroplating & UV micromolding
- Technology development on non silicon substrate (ceramics, glass, saphir…)

Design, simulation & characterization tools

- ANSYS, HFSS & ADS (RF design)
- LF and HF electrical measurements (up to 170GHz)
- MEMS mechanical resonant frequency test bench
- RF MEMS reliability test bench
- Temperature and atmosphere controlled electrical tests

Xlim institut de recherche

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