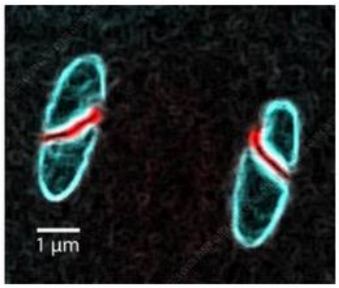
Our skills

Probe, control and functionalize the magnetism in matter



YOUR NEEDS

- Innovate with a new material
- Determine the best process for manufacturing your material
- Optimize your manufacturing parameters
- Upscale /mount on TRL prototype manufacturing
- Maintain or develop your skills
- Characterize and evaluate your coatings

RELATED SKILLS

- Nano and microfabrication
- Magnetic measurements
- Electric measurements
- Growth of nanomaterials under ultra-high-vacuum: MBE, PVD, PLD, ALD
- Chemical characterization (Spectroscopy, etc.)
- Structural and microstructural characterization (AFM, TEM, XRD, etc.)

OUR SOLUTIONS

- Magnetic and electronic transport properties (electric resistance) of objects used in the field of magnetic sensors, logic networks or systems used in information technologies (magnetic memory)
- Achieving technology transfer to industry
- Facilities: magnetometry (VSM, SQUID) low variable temperature (2K - 1000K) strong field (9T)
- Structural characterization: XRD, AFM, STM
- Processing under ultra-high-vacuum: MBE, PVD, PLD, ALD
- Measurement of variable temperature transport (2K - 400K) strong dynamic field (0 - 30GHz)

OUR REFERENCES

KEYWORDS

Magnetism, magnetoresistance, anisotropy, angular-momentum, demagnetization, giant magnetoresistance, macrospin dynamics, magnetic transitions, hysteresis, magnetic random access memory, magnetization dynamics, perpendicular magnetic anisotropy, spin transfer torque, spin valve, spintronics, nanomagnetics, nanostructured materials, multilayer thin-films, lithography, nanofabrication

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