



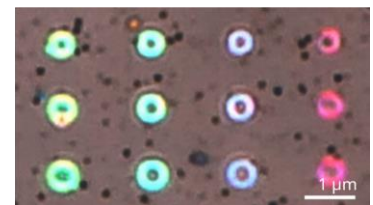
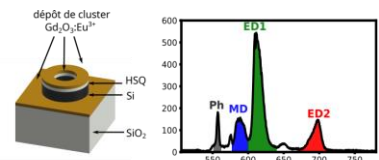
<https://jmc2026.sciencesconf.org/>

## NND03 : Advances in nanophotonics and (meta)materials

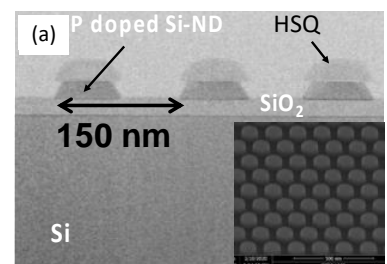
**Organizers:** Gonzague Agez (CEMES), Caroline Bonafos (CEMES), Aurélien Cuche (CEMES), Jean Marie Poumirol (CEMES)

**Invited Speakers:** Nicolas Large (UTSA), Thierry Grojean (FEMTO-ST), Davy Gérard (L2n)

**Content:** Innovative approaches in plasmonics and nanophotonics enable the generation, manipulation, sensing, and detection of signals at the nanometer scale, offering significant potential across diverse fields such as photovoltaics, optical communications, quantum information technologies, biophotonics, lighting, sensing, chemistry, and medicine. Despite their remarkable promise, optical nanoresonators and metasurface-based technologies still face key challenges, including limited optical tunability and difficulties in integrating functional metasurfaces into optical devices and systems. Recent breakthroughs in metasurface, dielectric and plasmonic materials, tunable optical functionalities, AI-based design strategies, and CMOS-compatible fabrication processes are paving the way for major advances in nanophotonics, metasurfaces, and their applications.



This mini-symposium will focus on the latest advancements in nanophotonics, (meta)materials, and metasurfaces. It will address the complexities of light-matter interaction at the nanoscale, the material challenges they present, and the most effective strategies for overcoming them. In addition, the event will cover emerging applications, innovative fabrication methods, and the role of deep learning-assisted design in advancing these fields.



### Topics:

- Plasmonics
- Nano-optics & nanoantennas
- Active and tunable optical metamaterials and metasurfaces
- Quantum nano-optics & metasurfaces
- Deep-learning design for nanophotonics
- Nonlinear optics in nanostructures and metamaterials
- Chiral light-matter interaction
- Functional (meta)materials
- Hyper-doped semiconductor metamaterials
- Nanomanipulation with light
- Nanophotonics for bio- and chemo-sensing applications
- Nanophotonics for energy applications
- Novel nanofabrication and assembling techniques
- Emerging applications