IDF INNOV

From invention to innovation

NANOTECHNOLOGICAL PROXIMITY RESEARCH FACILITY OF PARIS NORD

The C(PN)2 Platform is a nanotechnological proximity research facility, with clean-room, of Paris Nord University

Rheology ▪ Nanotechnologies ▪ Clean-room ▪ Organic Optoelectronic ▪ Plasmonic ▪ Electronic molecular ▪ Photonic

SCIENTIFIC EXPERTISE

- Micro and nanostructuring (photolithography, electron beam lithography, plasma etching), thin film deposition, and metal oxides, production of OLED
- Organic heterostructures Design
- Thin film deposition
- Characterization of light sources

APPLICATIONS

Electronic, telecommunication, diamonds, thin films, nanostructures, organic photonic, molecules detection system of biological or medical interest, alternative material, optoelectronic, molecular plasmonic, OLED, energy, ...

TRACK RECORD

- Micro OLED, Nanospheres Photolithography (NSPL), diamond structuring, patterned sapphire substrate (Corial)
- Collaboration : Saint Gobain Research, 3S Photonics, Adveotec

PUBLICATIONS

Getachew Ayenew et al., OPTICS EXPRESS, Vol. 22, Issue S6 pp. A1619-A1633 (2014)
François Gourdon et al., Appl.Phys.Lett., 213304 (2012)
Samira Khadir et al., OPTICS EXPRESS, Vol. 23, No. 18, 23647 (2015)
Alexandre Tallaire et al., Cryst. Growth Des., 16 (5), pp 2741–2746 (2016)

CONTACT

Mail : bd-services@idfinnov.com
Phone : +33(0)1.80.05.65.01

SERVICE DESCRIPTION

The PF is pooled at the USPC pole for the benefit of the Laser Physics Laboratory (LPL - UP13) Processes and Material Science Laboratory (LSPM - UP13), Chemistry, Structures, Properties of Biomaterials and Therapeutic agents Laboratory (CSPBAT - UP13) and Interface, Treatment, Organization and System Dynamics Laboratory (ITODYS - UP7). The themes dealt with in C (PN) 2 cover a wide spectrum of the materials or components fields, ranging from the development to the transformation, through characterization or technological development.

As part of its R&D activities, C(PN)2 PF has recognized know-how and advanced equipment to respond to issues / needs related to various themes like optoelectronics based on organic semiconductors.

The PF is also labelled «proximity research facility» by the CNRS, recognized as «Extra Large Search instrument» (TGIR) and is a member of the Expanded Base Technology Network (RTB +). C(PN)2 is a member of the Microelectronics Center of Paris Ile-de-France (CEMIP) and is acting within the National Training Coordination in Microelectronics (CNFM).

OFFER

- Micro and Nano structuring of alternative materials (photonic crystals in the Indium-Tin Oxide ITO) for use in photonics and optoelectronics;
- Design, fabrication and characterization of organic light sources (OLED);
- Clean-room of 200m² with control of: dust (ISO 8), temperature, pressure, humidity, laminar flow hoods (ISO 5);
- Characterization, trials, tests, checks, formulation;
- Prototyping;
- Advice, expertise, training;
- Thin film deposition