

News in Brief

- **Annual Nanophotonics de NANO-PHOT** with Sasha Govorov (Ohio University), 6 February at UTT. <https://nano-phot.utt.fr/news/international-workshop-in-nanophotonics-utt>
- **The Institute of Photonics** of which UTT is a member, opened its Website: <https://institut-photonique.fr/a-propos/les-fondateurs/>
- In January 2025, **UTT has been awarded the Sustainable Development and Social Responsibility (DD&RS: Développement Durable et Responsabilité Sociétale)** national label for a period of four years. <https://www.utt.fr/actualites/luniversite-de-technologie-de-troyes-obtient-la-labellisation-developpement-durable-et-responsabilite-societale-ddrs>.

AGENDA

■ **SPP conference**
19-23 mai, Tokyo
<https://spp11.tokyo/>

■ **General conference of the French Physic SFP, three Nobel Prizes will attend !**
30 June-4 July at Troyes
<https://cgsfp2025.sciencesconf.org/>

■ **Conference META 2025, 22-25 juillet, Malaga**
<https://metaconferences.org/META25/index.php/META/index>

■ **SPIE Optics conference + Photonics Exhibition, 5-7 August 2025, San Diego**
<https://spie.org/conferences-and-exhibitions/optics-and-photonics/exhibition>

CONTACT

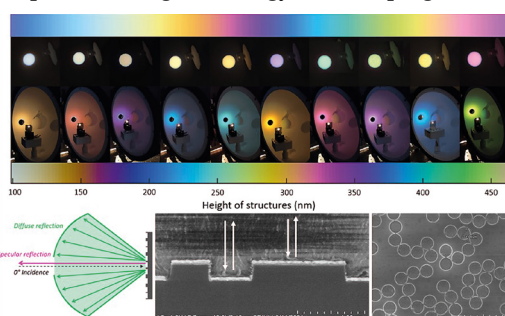
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FOCUS ONTO A NANO-PHOT INDUSTRIAL CLOSE PARTNER:

In-Fine: 10 years of innovation in structural colours applied to visual security and more

Since 2015, the University of Technology of Troyes, via the Light nanomaterials and nanotechnology laboratory, has worked together with the SURYS company (now IN Groupe) through a joint laboratory called In-Fine. The Innovation Center for Industrial Nanostructured Foils aims at developing innovative optical identification devices by combining two industrial and academic complementary knowhows in large scale structuring (roll-to-roll technology) and nanophotonics. Initially supported by the ANR through the starting and consolidation labcom initiatives, the R&D activity based on an initial 8 years roadmap has been organized in 6 research programs such as PLASMOGRAMTM renamed Metasurfaces, Hybrids renamed Multiscale and as for the diversification aspect a sensing and energy oriented program.

In 10 years more than 15 R&D projects have been conducted. 15 people have been regularly involved (8 FTE). NANO-PHOT students are strongly involved, 5 PhD have been conducted together with more than 16 master internships and 2 postdoctoral studies. 3 technologies have been already implemented. These include the PLASMOGRAMTM Reverso technology, the patented ETMF (enhanced transmissive metallic foils) technology and a recently developed technology aiming for specular and diffuse reflectance control (cf. figure below).



Example of an In-Fine studied technology for diffuse and specular reflectance control and tuning (Y. Billet *et al.* Advanced Optical Materials 12 (15) 2302165 (2024))

The take-home message for this successful industrial academic initiative lies in 4 words, meeting, common interest, precise frame of collaboration and confidence.

As for the coming five years security and diversification remain the main target with a more global industrial and societal scope that includes the creation of a physical platform for pilot production and collaborative R&D activities with UTT and IN Groupe partners without neglecting the sustainability of the developed process and technologies.

THE GRADUATE SCHOOL NANO-PHOT IN FIGURES (PERIOD MAY 2020-MARCH 2025)

- 2 Universities, 6 laboratories
- 4 doctoral schools
- 1200 m² platform of technology including 700 m² clean room
- 100 m² pedagogical clean room
- 140 books in a dedicated library
- 17 courses 100% taught in English
- 3.35 M€ initial budget + 8.62 M€ external funding
- 245 k€ of investment for training
- 29 mobility grants + 12 research grants awarded to master students
- 92% employment rate after master with an average annual salary of 39.5k€ (UTT's data)
- 21 close academic partners, 9 close industrial partners
- 73 signed agreements with foreign universities
- 104 trained M1 master students
- + 112 trained M2 master students
- 40 involved faculty members
- 29 "NANO-PHOT-labeled" PhD students, including 16 who are 50% co-funded by the Graduated School
- 35% women
- 48% students from foreign universities
- 82 scientific publications citing NANO-PHOT
- 167 research projects carried out by master students
- 10 PhD student prizes
- 67 completed NANO-PHOT 6-month master internships
- 8 sponsored conferences
- 3 summer schools organized
- 4 "nanophotonics" international workshops organized