DYNAMITE – ANR Program 2026-2029

Postdoctoral Researcher in Functional Ink Formulation and Printed Luminescent Materials for Next-Generation Optical Device

R&D CDD position (post-doctorate)
Start: 01/10/2026 *(Flexible)* **End :** 31/03/2028 *(Flexible)*
Location: LGP2 Laboratory, Grenoble INP – UGA, Grenoble, France
Contract duration: 18 months
Supervisor: Dr. Aurore Denneulin (Associate Professor HDR) / Dr. Anne Blayo (Associate Professor HDR)
Project: ANR DYNAMITE
Application deadline: 04/09/2026

Project Description

The DYNAMITE project is a collaborative French National Research Agency (ANR) project gathering academic and industrial partners around the development of innovative luminescent materials and their integration into functional optical devices. Within this framework, LGP2 (Laboratoire de Génie des Procédés Papetiers – UMR CNRS 5518 / Grenoble INP – UGA) is in charge of a Work Package, dedicated to the formulation, processing, and printing of functional luminescent layers. The recruited postdoctoral researcher will contribute to the development of advanced functional inks incorporating luminescent nanoparticles and to their deposition through printing and dispensing technologies for the fabrication of demonstrators.
The position is part of a multidisciplinary environment involving close collaborations with:

- ICCF (Institut de Chimie de Clermont-Ferrand) – Luminescent Group, expert in luminescent materials synthesis (Dr. HDR, D. Boyer)
- SUDFLUOR, industrial partner specialized in fluorination processes.

Scientific objectives

The postdoctoral researcher will contribute to the following activities:

- ⊃ Design and optimization of functional formulations containing luminescent nanoparticles;
- ⊃ Study of colloidal stability, rheological behavior, and dispersion quality of complex fluids;
- ⊃ Adaptation of formulations to printing and dispensing processes;
- ⊃ Deposition of thin functional layers using printing technologies (inkjet, dispensing, or related approaches);
- ⊃ Characterization of deposited films (morphology, homogeneity, optical response, adhesion, stability, etc.);
- ⊃ Correlation between formulation parameters, process conditions, and final device performance;
- ⊃ Participation in the fabrication of demonstrators integrating printed luminescent layers.

The candidate will also contribute to experimental design and data analysis, scientific reporting and project meetings, writing scientific publications and dissemination activities.

Research environment

The candidate will join the FunPrint research group at LGP2, led by Dr. Aurore Denneulin. The team develops expertise in Functional fluid formulation; Printing and dispensing processes; Surface functionalization; Processing of advanced materials for flexible and functional devices.

LGP2 provides a multidisciplinary environment combining process engineering, material science, chemistry, and characterization techniques.

The postdoctoral researcher will evolve within a collaborative ANR consortium and will interact regularly with the academic and industrial partners of the project.

For more information:
LGP2 : https://lgp2.grenoble-inp.fr/fr/laboratoire
ICCF : https://iccf.uca.fr/english-version/research/inorganic-materials/luminescent-materials#/admin

Candidate Profile:

- PhD degree/ doctorate appreciated
- Given the multidisciplinary aspect of the project, several types of skills can be valued:
  - Expertise in the field of materials (luminescent materials)
  - Expertise in complex fluid formulation and characterisation (colloidal stability, rheology, etc.)
  - Expertise in printing processes, in particular inkjet process (optimization of parameters)
  - Expertise in optical and luminescence characterization, including the evaluation of emission properties, photoluminescent performance, and related spectroscopic techniques.
- Strong scientific skills, including the ability to conduct research, analyze and interpret experimental results, and communicate findings effectively.
- Demonstrated autonomy, organizational skills, problem-solving abilities, and professionalism.
- Ability to contribute within a multidisciplinary research team.
- Good written and spoken English skills, experience in scientific writing and presentation is an asset.

To apply to this offer, please send a detailed CV, an application letter and the contact information of a referring person if possible.

Contact Information :
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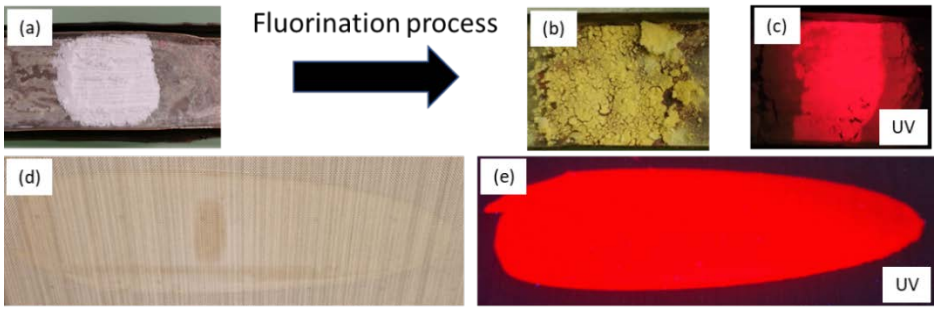

Figure 1. Photos of the mixture of KSF-Mn precursors (a) before and (b,c) after the fluorination process, and pictures of a silicon film containing 30 wt.% of KSF-Mn upon (d) daylight and (e) UV excitation.

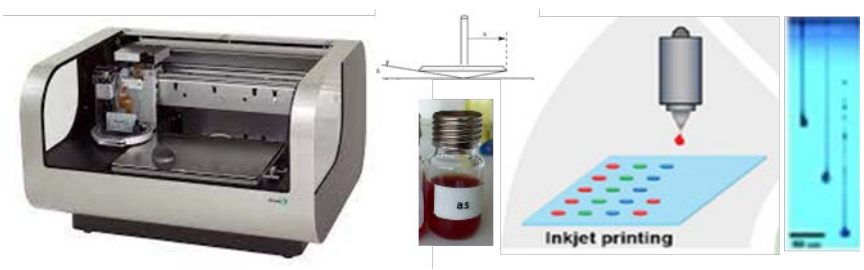

Figure 5. Inkjet printing deposition process – fluid stability and characteristics - ejectability