



MSCA

Marie Skłodowska-Curie Actions

*Developing talents,
advancing research*

Postdoctoral Fellowships



CALL FOR APPLICATIONS 2025 – FELLOWS

| | |
|-------------------------|---|
| Supervisor | Anna Levy |
| Supervisor page | https://w3.insp.upmc.fr/en/insp-page-perso/levy-anna-2/ |
| Host Institution | Centre National de la Recherche Scientifique (CNRS) https://www.cnrs.fr/en |
| Research Lab | Institute of NanoSciences of Paris https://w3.insp.upmc.fr/en/insp-en/ |
| Research Team | Low-dimensional Oxides https://w3.insp.upmc.fr/en/research/research-teams/low-dimensional-oxides/ |

Project Title

Tuning electrOnic ProPerties In Nanoparticles of Gold alloy

Project Description

The project seeks to experimentally assess the potential of AuPd alloy nanoparticles (NPs) as plasmonic photosensitizers to optimize the hot electrons transfer to semiconductors, essential for photocatalysis. It includes: the NPs synthesis and characterization; the NPs deposition on TiO₂ and the characterization of the heterojunction; the investigation of the femtosecond dynamics of the photodriven processes at the interface; the extension of the findings to a more realistic electrode model.

Keywords

photoelectron spectroscopy, transient absorption spectroscopy, surface science and nanostructures

Description of the Host Research Lab

The Institute of NanoSciences of Paris (INSP) brings together teams from four condensed matter physics laboratories. Its scientific objectives are at the heart of fundamental research in nanosciences, but it also has a wide range of applications: optoelectronics and telecommunications, earth sciences and the environment, catalysis and medical diagnostics.

To submit your application, please send an email with the required documents to
msca-pf@sorbonne-universite.fr