

Postdoctoral Fellowships

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CALL FOR APPLICATIONS 2025 - FELLOWS

Supervisor Rémi Lazzari

Supervisor page https://hal.science/search/index/q/*/authIdHal_s/remi-lazzari

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

Selective oxidation of Fe-alloys beyond the pressure gap: a surface science approach

Project Description

Modern Al-based light-alloy steels used by car industry to comply with environmental constraints challenge galvanization due to selective segregation and oxidation induced by recrystallization. This industrial issue will be tackled with a fundamental surface science approach by combining near-field microscopy and photoemission. Using single crystals, the idea is to explore crystalline orientation and environment effects on the epitaxial alumina film structures by going beyond the pressure gap.

Keywords

surface science, STM & XPS, epitaxial oxide thin films

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.