



## FLASH INFO N°14 - DECEMBRE 2023

### Spécial webinaire

Dear Colleague,

The Electron Spectroscopy Division of the French Vacuum Society cordially invites you to participate to the 6th edition of its scientific webinars, to be held Tuesday, December 12th, 2023 at 10 am, on the topics below :

**Part 1:** "Young scientist talk" (20 min, including questions)  
*"Surface potential at the ferroelastic domain and domain walls in CaTiO<sub>3</sub>"*

Presented by:  
**Grégoire Magagnin** (INL, EC-Lyon, France)

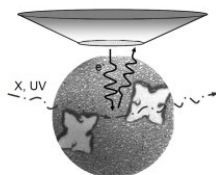
**Part 2:** "Main talk" (45 min, including questions)  
*"Low energy electron microscopy: from basic principles to surface dynamics"*

Presented by:  
**Frédéric Leroy** (CiNaM, Aix-Marseille Université, France)



Abstract:

In this talk, I will first discuss the principle of low energy electron microscopy (LEEM). I will describe the main imaging modes of material by LEEM using the reflected and diffracted electrons by the surface and then give an overview of the most important related techniques (LEED, spin-polarized LEEM, PEEM). Then I will discuss one of the major advantages of LEEM: the possibility to study in real-time the spatio-temporal dynamics of surfaces under non-equilibrium conditions through selected examples in the context of semiconductor physics. The thermal de-oxidation and the solid state dewetting of silicon thin films on silica (Silicon-On-Insulator) will be described, taking advantage of the multiscale potentialities of LEEM. Then I will focus on the growth of metallic eutectic nanodroplets on silicon surfaces, as seeds for nanowire growth. At last I will show that LEEM allows addressing electro- and thermo-migration processes at surfaces with unprecedented accuracy by measuring the drift velocity of single atomic step edges.



*Pour vous abonner au Flash Info trimestriel de la Division, renseignez le formulaire «Besoin d'info?» sur le portail du Comité Spectroscopie d'Electrons. Retrouvez-y également d'autres informations utiles : conférences, nouveaux périodiques, publications... !*