

# Irradiation

**ToF-SIMS** 

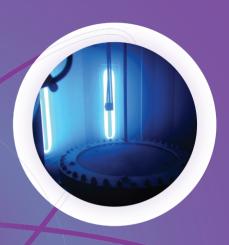


Sputtering

**IBA** 

Plasma

Ion implantation



Synthesis

Material science

Surface

Characterization





Analysis



XPS

Radiobiology

Our research is supported by















V.A



# **DESCRIPTION**

The SIAM platform enables applied and fundamental research in material sciences. It is active both in the synthesis and the characterization of materials.

The research conducted at SIAM has direct applications in various fields such as photovoltaic, intelligent coatings, nanomaterials, public health, biomedical applications...

### **EXPERTISE**

SIAM expertise in materials characterization relies on its capability of **combining various spectroscopies** (XPS, ToF-SIMS & IBA) for offering a global picture of any kind of sample: *metals, welds, glass, polymers, powders, liquids, in vivo biological material...* 

In addition, SIAM has several **facilities for functionalising** materials and/or **synthesising** thin films by plasma treatments.

## **EQUIPMENT & CAPABILITIES**

### **Analysis**

Tandetron Linear Accelerator (ALTAÏS) - Characterization

 IBA non-destructive and quantitative elemental depth profiles. Including H quantitation.
Typical depth 10nm to 1µm

#### **XPS and ToF-SIMS**

- Chemical and molecular composition at surfaces
- Chemical mapping (2D) and profiling (3D)
- Depth profiling of polymers

### Synthesis and irradiation

Tandetron Linear Accelerator (ALTAÏS) - Irradiation

- Radiobiology station (cells irradiation)
- Implantation station

#### Vacuum deposition chambers

- Plasma sputtering
- Plasma functionalisation





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