

Centre de microcaractérisation



Microstructural and chemical analysis of materials

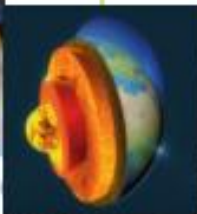
Metals



Céramics



Geomaterials



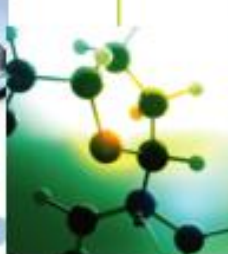
Polymers



Composites



Nanomaterials



Semiconductors



Research
Expertise
Consulting



Raimond Castaing Microanalysis Centre: <http://ccarcastaing.fr>



THE MICROANALYSIS CENTRE

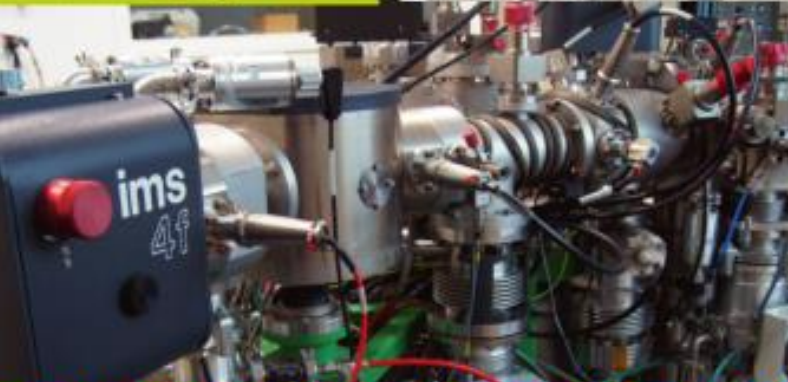
The Centre pools technical and scientific skills with the aim of enhancing the potential of the participating laboratories and responding to the needs of researchers and socio-economic stakeholders of the Occitanie Region.

WHO DOES THE CENTRE SERVE?

The Centre performs analyses and studies for both the private and public sectors. It thus contributes to making the Region more attractive, enhancing its scientific zone of influence, R&D activity and innovation. It does this by providing results to multiple projects, subsequent to national or international calls for tender.

WHAT DOES THE CENTRE PROPOSE?

Spread over 965m² in a high-security building perfectly suited to carrying out analyses that can reach right down to the scale of the atom. The aim is also to conciliate the demands of science and industry while respecting the notions of sustainable development.



QUALITY POLICY

Our methodology concerning quality management encourages making full use of human and material investment. With a background of extensive field experience, our staff pursues this approach to ensure the Centre's continued development.

It is in this framework that the aims of the structure are defined:

- encouraging the broadening each person's skills;
- enlarging the zone of influence and the reputation of the Centre while increasing its opportunities;
- strengthening the Centre and its activity: this involves promoting two major elements - the skills of the staff and the quality of the equipment and the infrastructures.

Beyond satisfying the immediate needs of the users, our Quality Policy must encourage interactions between different disciplines, different fields of expertise, and the socio-economic representatives of the region.



The management system implemented in **Unité Mixte de Service R. CASTAING** for the activities **Caractérisations structurales, microstructurales et chimiques des matériaux jusqu'à l'échelle atomique** has been assessed and found to meet the requirements of **ISO 9001 : 2015**
The certificat is valid from **2016-11-23** to **2019-11-23**

EQUIPMENT & SKILLS

The Centre boasts tools of the latest generation accessible to researchers and industrial laboratories from the Occitanie Region for their multi-scale physicochemical analyses of a whole range of materials

From the preparation of samples to carrying out the measurements and interpreting the results, the Centre's technical staff (engineers and technicians), acknowledged experts in the various analytical techniques can also provide users with essential advice. It is an on-going challenge to constantly find elements of response to increasingly specific issues.

ELECTRONIC MICROPROBES

CAMECA SXFive FE
CAMECA SXFive

Quantitative microanalysis

SCANNING ELECTRON MICROSCOPES (SEM)

MEB/FIB FEI HELIOS 600i - EDS
MEB-FEG JEOL JSM 7800F Prime - EDS
MEB FEG JEOL JSM 7100F TTLS LV - EDS/EBSD
MEB FEG JEOL JSM 6700F - EDS

Morphological, structural and chemical analyses of solid specimens at the micron and nanometer scale

TRANSMISSION ELECTRON MICROSCOPES (MET)

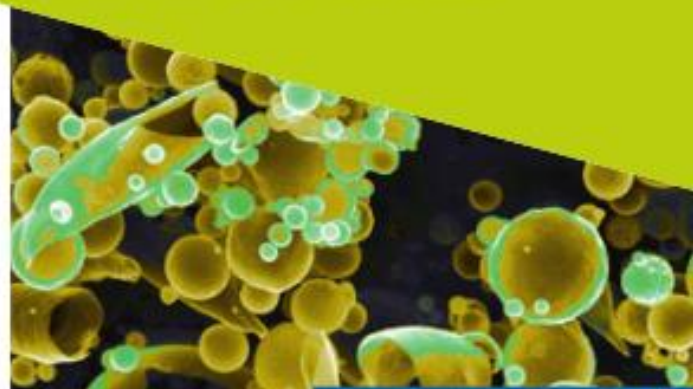
MET JEOL JEM-ARM200F Cold FEG Corrected Probe- EDS/EELS
MET JEOL JSM 2100F - EDS
MET JEOL JEM 2010 - EDS
MET JEOL JEM 1400
MET JEOL JEM 1011

Morphological, structural and chemical analyses of solid specimens at the atomic scale

SECONDARY ION MASS SPECTROMETER (SIMS)

SIMS CAMECA IMS 4FE6

Physicochemical, elementary and molecular analysis of the surface and the internal composition of solid materials



EQUIPEMENT FOR PREPARATION

Equipment for polishing, thinning, cleaning, systems for pulverisation, pickling and metallisation, optical microscopes, slicing equipment





RAIMOND CASTAING (1921-1998)

A pioneer of quantitative microanalysis, Raimond Castaing is known worldwide for having invented the Castaing microprobe or electronic microprobe. Equipment which exists, partly thanks to him, is present at the Centre. He studied both in Condom (Gers) and in Toulouse and always maintained close links with the Occitanie Region.

For these reasons, in his honor and with the agreement of his family, we chose to give his name to the Centre.

FIELDS OF APPLICATION

Energetics and Energy Production

Biotechnology and Pharmaceutical Industry

Chemical and Metallurgical Industries

Building and Civil Engineering

Electronics and On-board Systems

Aeronautics and space

Automotive Industry and Transport



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