Nanoparticles
- Gold particles
- Hematite
- SiO₂ spheres
- Nanosheets

EFTEM: plasmonic optical modes of gold nanoparticles

Iron oxide
Magnetite

Electron Diffraction
Highlight of twinning and superstructure in perovskite based compounds

STM - EDS
Ni exsolution in double perovskite

EFTEM: Energy Filtered Transmission Electron Microscopy
Ni nanoparticles on Si substrate.
EFTEM shows an oxidation layer on the Ni nanoparticle

EELS:
Electron Energy Loss Spectroscopy
Mn-based clusters compounds and Mn oxides
THEMIS
Transmission Electron Microscopy facility at Rennes
https://scanmat.univ-rennes1.fr
themis@univ-rennes1.fr

Cross-section preparation
Sb₂Se₃ thin film on glass substrate

Tomography
Cluster spheres

PEDT: Precession Electron Diffraction Tomography
Precession: the beam describe an hollow cone with the sample at its apex

Devices
Microscope: TEM JEOL 2100 LaB₆
CCD Camera Orius 200D
CCD Camera UltraScan 1000
STEM Module with BF/HAADF Detectors
EDS Oxford SDD 80mm²
GIF (Gatan image filter) combined with UltraScan 1000 for EFTEM ans EELS
Digistar for precession electron diffraction
Simple tilt holder
Double tilt Be holder
Tomography holder
Stretching holder

Fischione Ion Mill 1010
Fischione Plasma Cleaner 1020
Quorum Q150T ES (carbon evaporator and metallizer)
Saws, polishers and optical microscopes

Prices
TEM plus connected devices:

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<th>Management Fees (€ PT)</th>
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Preparation of thin sample:

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Contacts
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