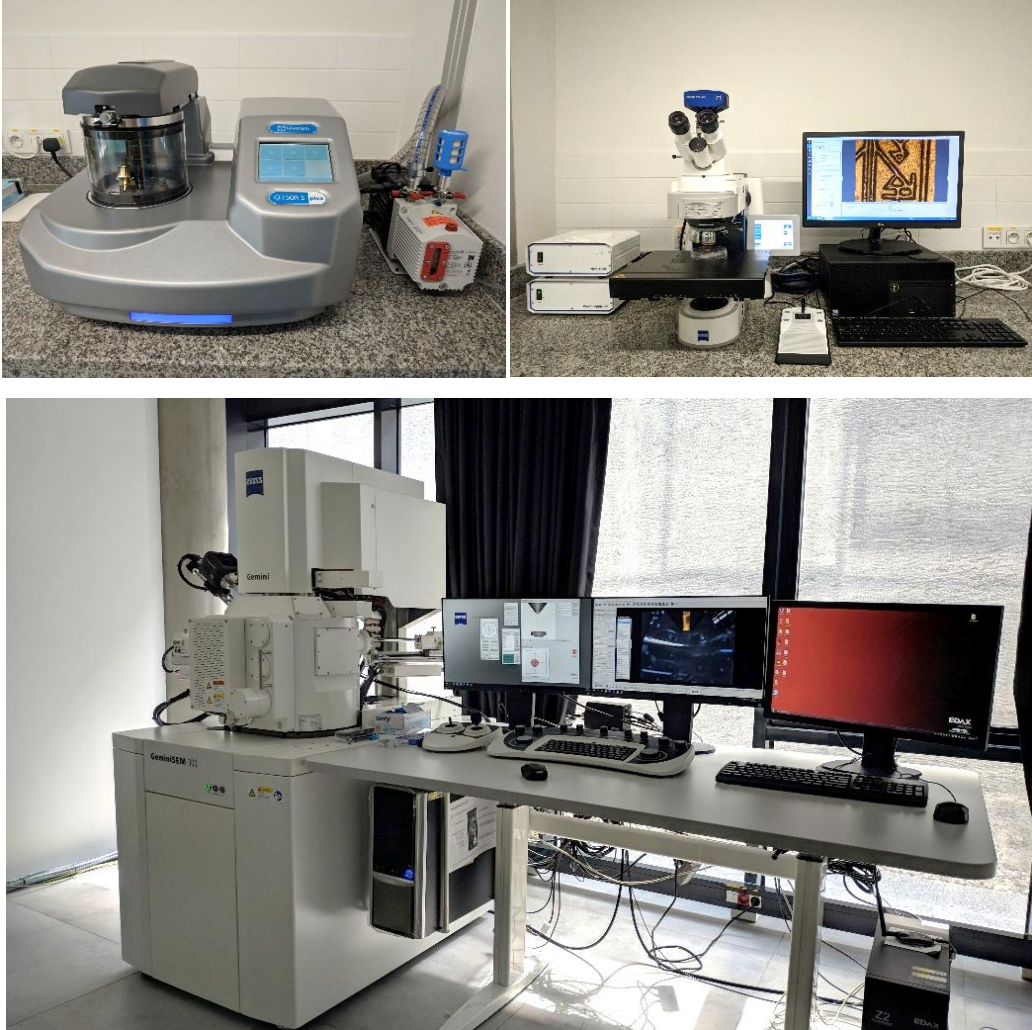


SCANNING ELECTRON MICROSCOPE (SEM)



Intended Use of the Instrument: Analysis of surface topography and chemical composition of materials

Instrument Brand/Model: Zeiss Gemini 300

AGU CRF Thematic Laboratory: Nanoimaging and Analysis Laboratory

Location of the Instrument: AGU-CRF LAB6

Academic Director(s) of the Instrument:

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Zeiss Gemini 300 Field Effect SEM is equipped with secondary electron (SE) and back-scattered electron (BSE) detectors for fundamental imaging. Besides, in-lens detector offers high resolution images allowing lower working distance and accelerating voltages. STEM detector creates images in transmissive mode in a similar fashion to TEM. EDS detector is used to investigate chemical composition of specimens. A sputtering device is used to coat non-conductive specimens at nanometer scale.

The optical microscope offers brightfield, darkfield and CDIC imaging modes at 5x, 10x, 20x and 100x magnification. This microscope allows mapping a specimen and further analyze the target region in SEM thanks to the motorized stage and interchangeable sample holder with SEM.