

## HELIOS G4 SEM

 Villach

### BRIEF DESCRIPTION

The Helios G4 is a combined electron / focused ion beam microscope for topography and morphology analysis of micro- and nanostructures as well as the structuring of thereof. The system is equipped with a Bruker EDX detector, which allows to determine the composition of chemical elements in a sample.

### RESEARCH SERVICES

- High resolution imaging
- EDX composition analysis
- Cross sections via Focus Ion Beam
- Small surface structurin via Focus Ion Beam
- Ebeam Lithography

### METHODS & EXPERTISE ON THE RESEARCH INFRASTRUCTURE

Key Specifications:

- Up to 200 mm wafers – stage movement 150 mm x 150 mm
- High resolution SEM imaging with in-lens mode
- Electron column and Ion column (Ga-Ions) up to 30 kV
- Ion beam patterning and Gas injection system for Pt deposition and insulator enhanced etch (XeF<sub>2</sub>)
- SE detectors: ETD, TLD
- BSE detectors: TLD, MD, ICD, ABS, CBS
- EDX detector
- Software: XT microscope, Maps plugin, Nanobuilder plugin
- Add on 2022: EBL Lithography capability with the software Elphy Multibeam (RAITH)

### CONTACT

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