**FEI Helios NanoLab 660 G3 UC**

Scanning electron microscope with focused ion beam milling equipped for cryo-imaging and correlative light and electron microscopy (CLEM)

**Application**

* 3D scanning electron microscopy (FIB-SEM)
* high resolution scanning electron microscopy (embedded, dried or frozen samples)
* elemental analysis (EDS)

**Microscope**

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| Software | **AutoSlice&View 4.1, Amira 6 softwares for image analysis** |
| Electron and Ion sources | **Electron gun with Schottky thermal field emitter**  **LMIS Ga3+ ion source** |
| Electron column/optics specifications | available accelerating voltage**: 350 V – 30 kV**  probe current: **0,8 pA – 100 nA**  imaging modes: **field free, XHR immersion, EDS optimized** |
| Ion column/optics specifications | Ion column type: **Tomahawk**  available accelerating voltage: **500 V – 30 kV**  probe current: **0,1 pA – 65 nA** |
| Detectors available | * in-lens detector (TLD – SE, BSE) * in-column SE detector (ICD) * in-column BSE detector (MD) * Everhart-Thornley SE detector (ETD) * Retractable high contrast solid-state backscatter electron detector (CBS) * Retractable STEM detector with BF/DF/HAADF segments * Secondary electrons/ions detector (ICE) * energy dispersive spectrometer (EDS) * Others: IR camera for viewing sample/column, Chamber mounted Nav-Cam+, Integrated beam current measurement |
| Resolution | **Top resolution Conditions**  0,6 nm 30 kV (STEM)  0.6 nm 15 – 2 kV  0,7 nm 1 kV  1,0 nm 500 V (ICD)  4 nm 30 kV (i-beam) |
| Stage | Stage type: **High precision 5-axes 16 inch piezo motorized stage**  **Cryo-stage Leica VCT100** |
| Others | **Gas Injection System – platinum and carbon depostion, Plasma cleaner (mounted on the chamber), Micromanipulator EasyLift EX (FEI)** |