DELMIC products

S P A R C
High-Performance Cathodoluminescence

Delphi
Insight Simplified

SECOM
Integrated Correlative Microscopy

Integration without compromise
How to resolve sub-\(\lambda\) optical effects?
How to resolve sub-\(\lambda\) optical effects?
Integration without compromise
Imaging optical properties at the nanoscale

- The e-beam is used to excite nanostructures
- This enables to study structures with deep-subwavelength resolution
- And easily correlate structural with functional information

Integration without compromise
Coherent and incoherent contributions to CL

Coherent:
- Nanophotonics
- Plasmonics

Incoherent:
- Geology
- Materials science
- Optoelectronics
- Nanophotonics

Integration without compromise
Retractable mirror stage
Experimental setup
Integration without compromise

collection
detection
ODEMIS integrated software

- Easily visualize 3D CL data as a 2D map or pixel by pixel graph
- Immediate polar plotting of angle-resolved images
- Use correction files (such as the system response function) to obtain a corrected spectrum in one go
- Drift correction
- Advanced 2D slicer through 3D dataset with adjustable integration limits
- Simultaneous acquisition of the secondary electron and spectral or angle-resolved images
Integration without compromise
Outlook

3D imaging: Tomography

Polarization

Ultrafast CL

Mid-IR detection


Integration without compromise
The SPARC platform

at a glance

+ High-performance cathodoluminescence detection system
+ Modular design allows for addition of different detectors and detection paths
+ Angle-resolved mode makes new types of research possible
+ High precision alignment stage gives unprecedented photon yield and reliability
+ Get spectroscopic information at the nanoscale, down to the resolution of an SEM
Integration without compromise