MICRO-429: Metrology Practicals T1: SEM

Marcos Penedo
Mahdi Mehdikhani
Georg Fantner
LBNI, EPFL

SEM: Scanning electron microscopy

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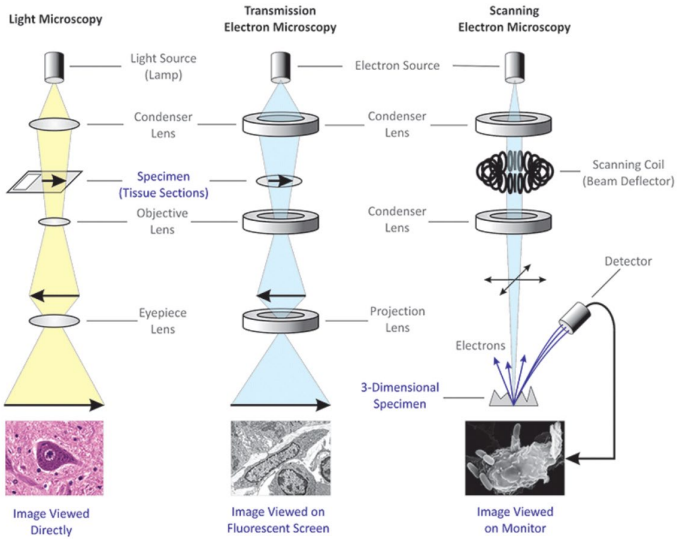
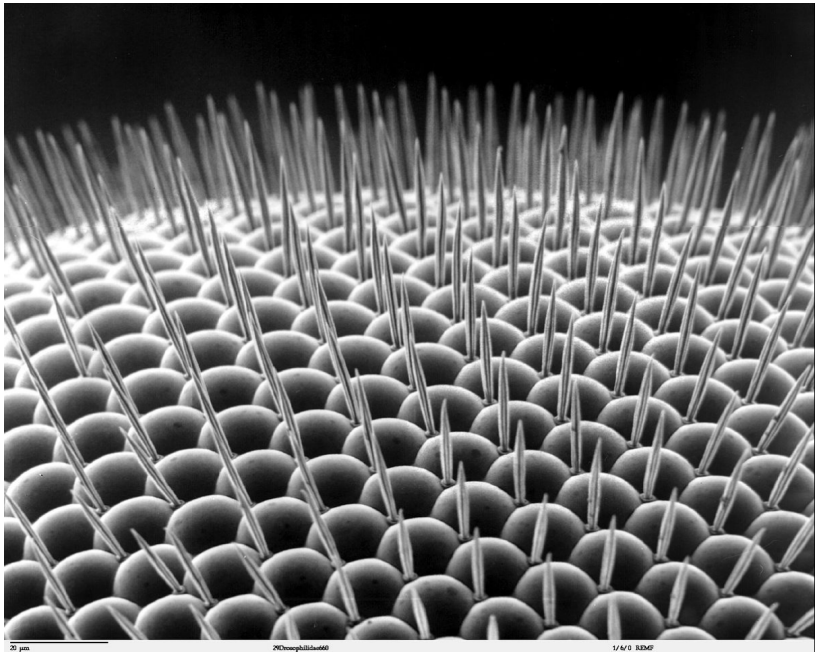
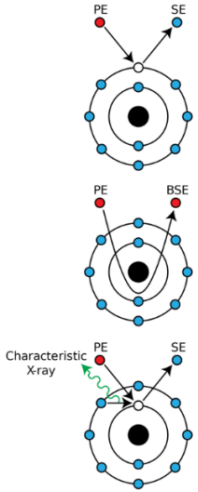


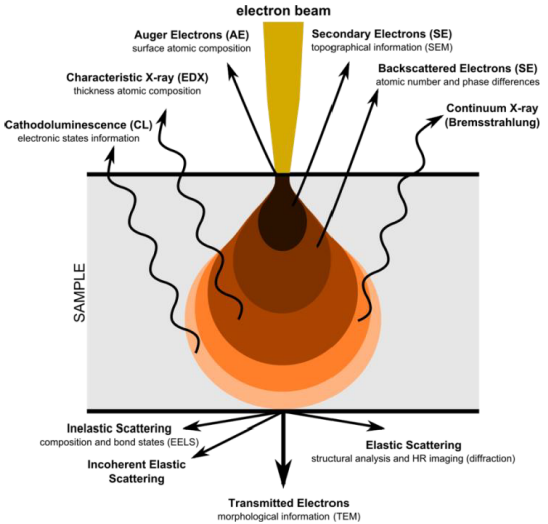


The eye of the fruit fly
(Louisa Howard, Dartmouth Electron Microscope Facility)

T1 - Objectives

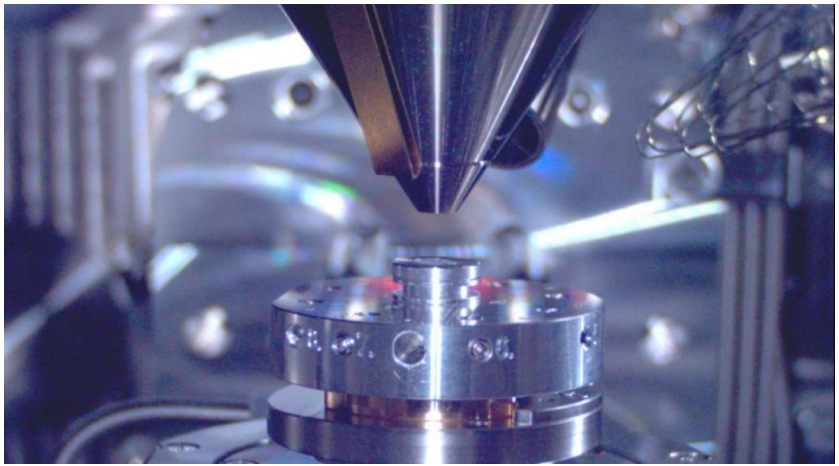
- How SEM works
  - Different types of detectors in the SEM
  - Effects of changing imaging parameters on the quality (e.g acceleration voltage and current)

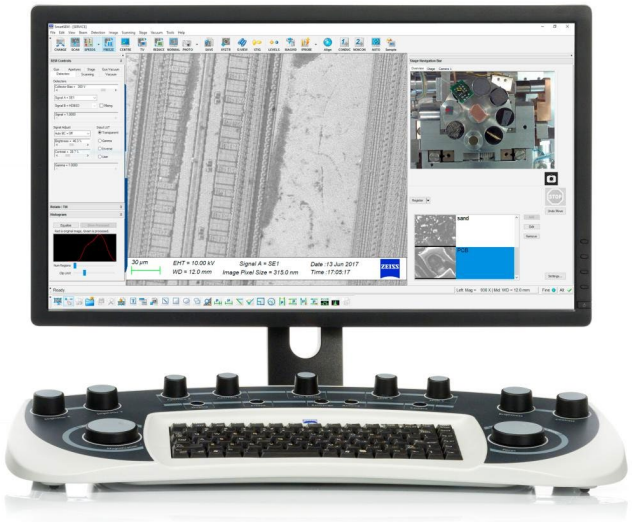




T1 - Objectives

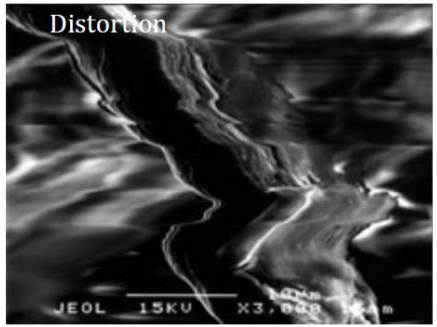
- Basics of operating a SEM

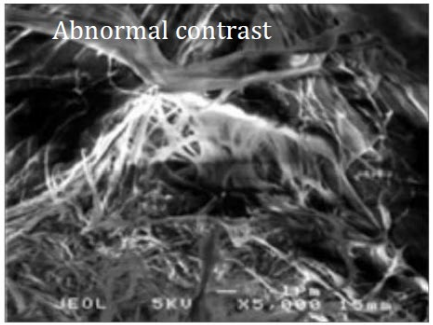


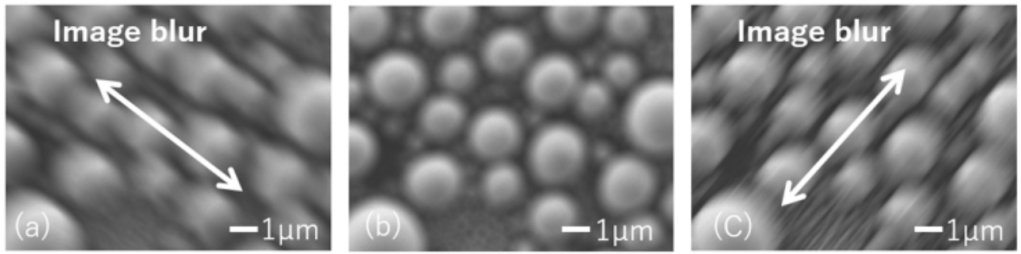


T1 - Objectives

- Image artefacts (charging, astigmatism)





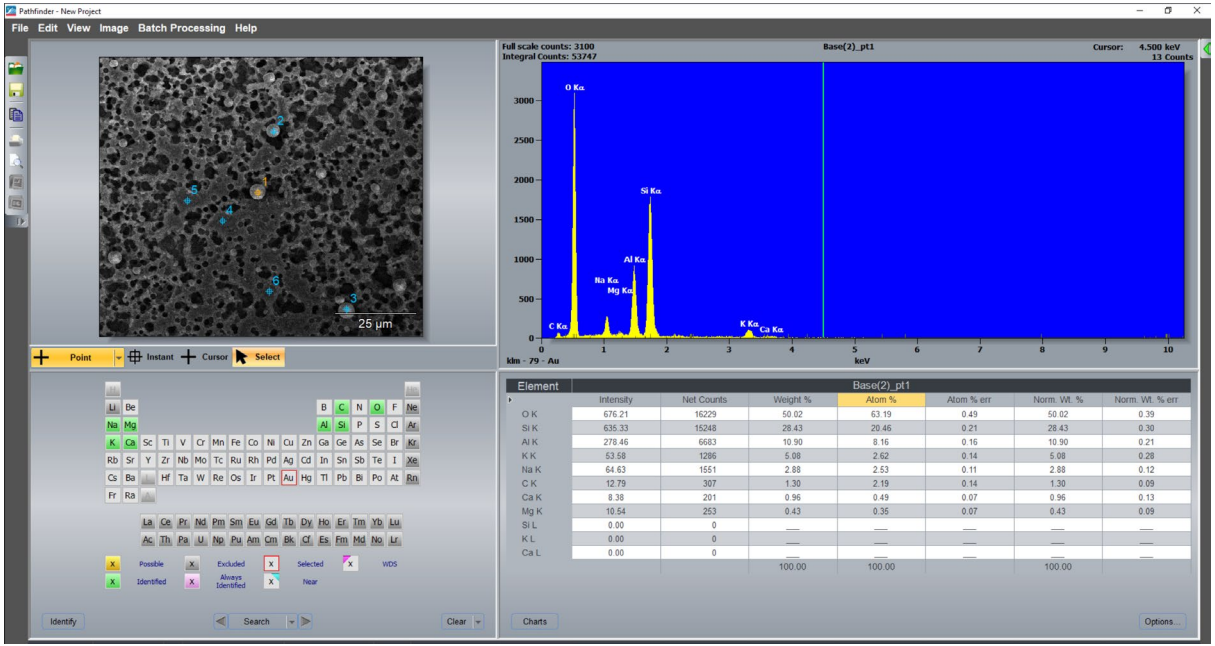


Over focus | Exact focus | Under focus

Speaker

T1 - Objectives

- EDX (Energy Dispersive X-ray spectroscopy)
  - Elemental analysis and mapping



Meeting point

Google Map