

List of acronyms

Any of the following acronyms might be used on the exam without further definition – know what they are! You should also be able to write out the full name if asked.

TEM – Transmission Electron Microscopy

SEM – Scanning Electron Microscopy

STEM – Scanning Transmission Electron Microscopy

FEG – Field emission gun

STM – Scanning Tunneling Microscopy

AFM – Atomic Force Microscopy

SE – Secondary electron

BSE – Backscatter electron

BF – Bright field

DF – Dark field

HAADF – High angle annular dark field

XEDS (EDS, EDX) – X-ray energy dispersive spectroscopy (energy dispersive spectroscopy, energy dispersive X-ray spectroscopy)

EELS – Electron energy loss spectroscopy

EFTEM – Energy filtered transmission electron microscopy

XPS – X-ray photoelectron spectroscopy

LEED – Low-energy electron diffraction

RHEED – Reflective high energy electron diffraction

ELNES & EXELFS – Energy loss near edge fine structure & Extended energy loss fine structure

Note: you do NOT need to know the full names for ELNES and EXELFS – in these cases you should just recognize the acronyms and be able to explain (very briefly) what these techniques are

For any other acronyms used on the exam, the full name will also be given.

