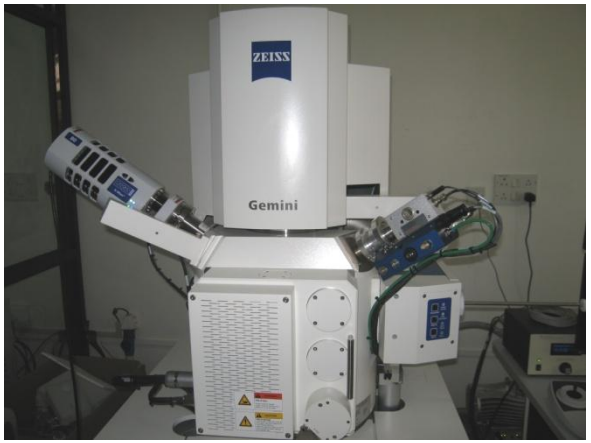
Field Emission Electron Microscope (FESEM)



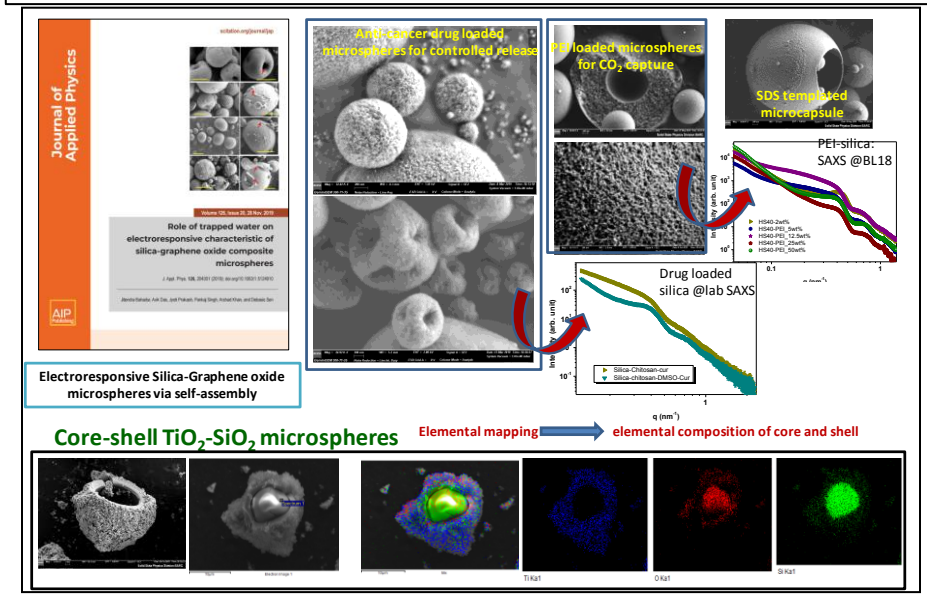
Instrument parameters:

Resolution	0.8 nm at 15kV and 1.4 nm at 1kV
Magnification	up to 2 x 10^6
Operating voltage	20V to 30KV
Number of slots for mounting samples	9

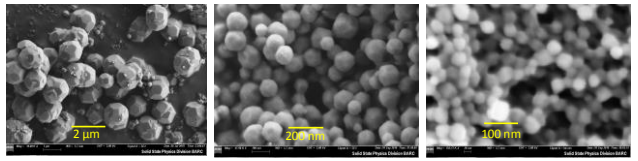
Additional attachments

i) Energy dispersive X-ray (EDX) analysis for elemental mapping [Energy resolution⩽ 127 eV at MnKα; Sensitivity ~0.01 wt%]
ii)Variable Pressure (VP) Mode (<500 Pa)
iii) 80-mm airlock allows quick transfer of the samples without breaking the system vacuum
iii) Plasma cleaning the sample chamber for removing contamination

Probe morphology of nanostructured materials in film as well as powder form along with elemental analysis of **nanoparticles, alloys, porous materials, ceramics, polymers** etc.

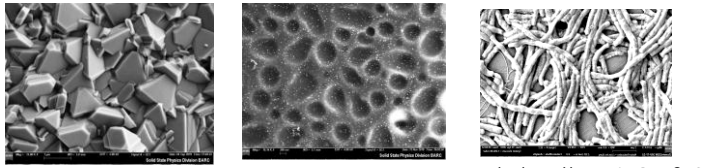


Tuning of crystal size of Metal organic frameworks [Zeolitic imidazolate frameworks]

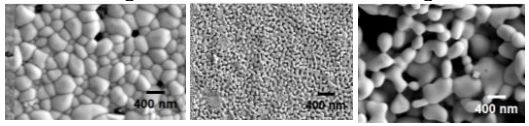


@RCD, BARC

Crystal size bears important implications for gas adsorption capacity



Bi-Se thin film @A&MPD | Au NPs loaded membrane @FCD | Dehydrated bacteria @RH&BSD



$BiVO_4$ thin films @G&AMD

Morphology dependent photocatalytic of $BiVO_4$ thin film