

FESEM EDAX TESTING FACILITY – PSGTECHS COE INDUTECH

Write your requirements to: semedaxlab@psgtech.ac.in

FIELD EMISSION SEM (FESEM)

FESEM is an advanced microscope offering increased magnification and the ability to observe very fine features at a lower voltage than the SEM found in most laboratories.

The Field Emission Scanning Electron Microscope (FESEM) has a much brighter electron source and smaller beam size than a typical SEM increasing the useful magnification of observation and imaging up to 500000 x. A second advantage of the FESEM is that high resolution imaging can be performed with very low accelerating voltages. This enhances the observation of very fine surface features, electron beam sensitive materials, and non-conductive materials.



Typical Applications

- Microscopic feature measurements
- Corrosion evaluations
- Powders evaluations
- Film evaluations
- Striation measurements for high-cycle fatigue fractures
- Coating evaluations
- Characterization of very fine specimen features
- Fracture characterization for polymers and very small components
- Surface contamination analysis
- Small component material analysis
- Laser and resistance weld evaluation
- Printed and integrated circuit analysis
- Microstructure studies

For more information about the capabilities and typical applications of the FESEM write your email to semedaxlab@psgtech.ac.in

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ENERGY DISPERSIVE X-RAY SPECTROSCOPY (EDAX)

EDAX is an elemental chemical microanalysis technique performed in conjunction with FESEM. Features or phases as small as about 1 micron can be analyzed.

EDAX analysis detects x-rays emitted from the sample during bombardment by the SEM electron beam and characterizes the elemental chemical composition of the analyzed volume. EDS is capable of obtaining rapid qualitative chemical information, semi-quantitative composition determinations, maps showing lateral distribution of chemical elements, and compositional profiles across a surface.



Typical Applications

- Foreign material analysis
- Corrosion evaluation
- Coating composition analysis
- Rapid material alloy identification
- Small component material analysis
- Phase identification and distribution
- Elemental mapping
- Line scanning

Contact us to discuss which evaluation method is best suited to solve your materials related problems.

LABORATORY INCHARGE & TECHNICAL SUPPORT

G.SELVAKUMAR

Assistant Professor (Research)

PSGTECHS COE INDUTECH

Avinashi Road

Neelambur

Coimbatore -641062.

Email:semedaxlab@psgtech.ac.in

Tel : 0422-3933250