

External Application

Guidelines for Transmission Electron Microscope (TEM) - External sample submission

1. Instrument specifications:
 - a. Make and Model: FEI Tecnai G2 Spirit Bio- Twin TEM 120kV
 - b. Gun specification: Thermionic emission - Lanthanum hexaboride (LaB6)
 - c. Max Magnification: 340 KX
 - d. Accelerating Potential: 120 kV
2. Main Features of the Instrument:
 - a. Morphology images with high contrast
 - b. Biological and organic samples can be measured
3. Imaging is only possible for samples on grids of ~ 3mm diameter.
4. The charges mentioned here are on a per-sample basis. An average of 20 images of different magnification will record.
5. It is mandatory to provide some idea (size and shape) of the expected morphology of the sample.
6. Magnetic samples are not permitted for analysis.
7. It is preferred to prepare and drop cast the sample in the required concentration on carbon-coated copper mesh/grid by the user and send it for analysis. Additional charges will require for the grids if the sample preparation is performed from our side.
8. If the sample is sending not in grids, please specify any particular solvent is required to disperse the sample otherwise the usual solvents of IP / Ethanol will use for dispersion. Also, please mention any particularity about the concentration of the sample.
9. Email for any contact: tem120kv@iisertvm.ac.in
10. Sample submission form (page 2 in this document) must be completed in full and sent along with the sample.
11. Sample along with sample submission form can be sent to the following address with the FBR number written on the top of the envelope.

**Central Instrumentation Facility,
Indian Institute of Science Education and Research Thiruvananthapuram,
Maruthamala P.O., Vithura,
Thiruvananthapuram 695551, Kerala**



Indian Institute of Science Education and Research, Thiruvananthapuram

TRANSMISSION ELECTRON MICROSCOPY (TEM) 120 kV FACILITY

(Complete form is essential)

Date:

FBR Number:

Name of the Research Scholar:

Institution/Address:

Email:

Contact Number:

Sample Code:

Sample Details:

The expected morphology of the sample:

Sheet / Rods / Round / etc

The expected size of the sample: nm x nm

Are you preparing the sample and sending it in grid or sending the sample only?:

If you are sending sample only, please specify any particular solvent is required to disperse the sample:

Any special comments:

Signature:

Date: