

How the TEM measurement services work

Preamble. *To provide the best possible results and services to the users, we decided that mostly the qualified staff of the Forschungszentrum für Elektronenmikroskopie (FZEM) should conduct the measurements. That way, our staff can also schedule measuring times and order for best utilisation of the machines.*

Exempted from this regulations are trained users, which typically operate as key users for their working groups doing standard measurements for the group members. These key users are able to book dedicated resources on their own.

To keep track of all inquiries of interested parties, we are using OpenIRIS as booking and documentation platform. Hence, if you want to collect TEM data at our facility, please initially use the 'Register with Transmission Electron Microscopy (TEM) - BSM' service which is publicly available on fub.openiris.io/resources. The registration needs approval by the users' group head. Only after this approval, we will adjust your access to our TEM measurements services.

The request 'TEM measurements (FZEM – BSM)' starts a workflow that, hopefully, provides the best support for unexperienced as well as advanced users and ensures optimal conditions for successful data collections. Therefore, it is necessary to fill the requests pop-up form very carefully and exhaustive. See that you carefully decide between single measurement (sample information) and measurement series (project information).

- On submission of the request, a workflow is initiated comprising several tasks:
 - Normally, the workflow starts with a preliminary talk with the responsible staff at the Forschungszentrum für Elektronenmikroskopie (FZEM) to discuss the project and required preliminary work (which may be already done), the lead times that must be met, necessary precautions for handling the sample and during the grid preparation, etc.
 - Preliminary TEM tests may have to be included in the workflow.
 - If necessary, cryo-TEM grids of the sample will be prepared, clipped into autogrids and stored until measurement.
 - Our staff will short-term schedule the measurements in consideration of the utilisation of the microscopes. The actual measurement starts with the transfer of the grids to the microscope, followed by routine set-ups of the required optical settings. In some cases the users attendance at the measurement may be helpful, e.g. to effectively identify the subject(s) of interest.
 - Members of the core facility BioSupraMol (BSM) will get their data stored on the BCP shared network drive (make sure you have access to it). All other users should take their data into charge within a few days after the measurement is completed. You will be informed.
- If all necessary tasks are completed, the request is closed. The requester can follow the progress of her/his request on fub.openiris.io.
- According to the usage policies of the Core Facility BioSupraMol (user guidelines), BSM charges all costs to the group heads account quarterly.