

Service Level Agreement for the Transmission Electron Microscope Facility
School of Biological and Chemical Sciences
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Contact

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Definition of service

The Facility uses a Jeol JEM 1230 transmission electron microscope for ultrastructural research. The microscope can achieve up to 300,000× magnification at 80 kV accelerating voltage and is equipped with a Morada CCD camera with imaging software (iTEM, Olympus Soft Imaging Solutions) for digital imaging.

The TEM Facility offers conventional TEM fixation and embedding procedures, Immunogold labeling and Freeze Fracture replication for biological samples including plant, animal and bacteria. We also offer negative staining for particles in suspension (proteins, polymers, nanoparticles, exosomes). Furthermore, services for ultra-sectioning of polymer films, membranes and plastics for materials science research are available.

The facility will provide training and technical support for all the equipment. People wishing to use the instruments and not the facility directly may do so, providing they obtain sufficient training and book all equipment by contacting the TEM Facility Manager at g.mastroianni@qmul.ac.uk.

The use of the JEOL JEM 1230 is allowed only after gaining competence through a defined number of training sessions.

Service provided

The facility will process the samples using relevant techniques and produce three grids per each sample, ready to be visualised on the Microscope. A number of micrographs will be recorded at the TEM. The cost of work completed by the facility is tailored to each individual, depending on a number of circumstances, such as ease of task. All prices are subject to continual review.

Training

If you wish to use the microscope independently, training is compulsory and usually can be completed in 2-3 session of 1 hour or until achieved confidence.

User responsibilities

The user is responsible for furnishing details of any hazards associated with the preparation in line with COSHH regulations. Furthermore, the user is requested to complete a risk assessment associated with their experiment.

Confidentiality

All data and any related information regarding work carried out in the TEM Facility will remain confidential and not released in any format without the permission of the user. Confidentiality agreements with commercial users can be made upon request.

Publication and acknowledgements

Where the TEM facility has made a contribution to the work, one that is worthy of authorship, the service provider will be a co-author on resultant publications. The service should be acknowledged as follows: "The authors would like to acknowledge use of the Transmission Electron Microscopy Facility at Queen Mary University of London".

Problem management

The user may approach Prof. Conrad Mullineaux in the case of any concern or for resolution of any difficulty.