

FEI Tecnai Osiris guide sheet

The gun extraction voltage is set by FEI and CIME for correct operation of the X-FEG. It must not be altered by users.

Users are not allowed to align Gun Tilt and Gun Shift. If you think that they need realigning please inform Marco or Duncan.

Users are not allowed to reboot the microscope PC.

Please contact Marco or Duncan for solving software/hardware bugs.

The aim is that users understand the microscope and its software. Thus, the choices of the following are the responsibility of the user, in accord with their experimental needs:

- TEM or STEM gun lens/spot size/beam current/apertures
- CCD camera binning and acquisition time
- STEM detector choice, camera length, pixel dwell time and frame size
- Image and mapping pixel dwell time, frame size in Bruker Esprit

You should not assume that the settings left by the previous user are ideal for your needs, and should actively verify them. If you are unsure of what conditions to choose you are welcome to ask Marco or Duncan.

Supervisor is the default login for all users. Under this login CIME provides basic FEG registers that we strive to keep up to date and in good condition in the file "Supervisor_200kV.feg". There is one TEM and one STEM FEG register (STEM with ~1 nA beam current) that can provide a basis for your work.

If you want to make a new FEG register for your experimental needs please store it in your own personal .feg file. Please take care not to overwrite existing basic FEG registers.

End of session checklist:

- Gun valve closed
- TEM Bright Field mode, 64000 x mag, 200 kV HT + alignments/FEG register
- 2000 μm CL1 and 70 μm CL2 apertures, Flucam screen inserted
- CCD camera, objective and selected area apertures retracted
- Reset stage, re-insert standard single tilt holder with cross grating
- All other specimen holders to be left in the pumping station
- *Leave under Supervisor login, with all software open.*

The microscope is heavily booked so please let other users know if you do not need all of your session. In case you cannot attend your session, please cancel your reservation and inform other users in advance.