



SCHOOL OF MATERIALS ENGINEERING

Electron Microscopy Facility *a unit of the Purdue Electron Microscopy Consortium*

JEOL 2000FX Transmission Electron Microscope MSEE S0002C

Rules of Operation

General Facility Rules

1. Eating, drinking, smoking, chewing of gum are all prohibited within the electron microscopy laboratories.
2. All users of the facility must be qualified to use each instrument individually, or operate the instruments under supervision.
3. You may not use any instrument, control or subsystem for which you have not been trained.
4. All users must have the ability to pay for their usage. Purdue users must provide a valid account number in the log book. External users must provide a purchase order number.
5. Instrument bookings are made in the calendars attached to the individual doors.
6. Users must enter their names in the log book *before* beginning their session.
7. The log book must be completed at the end of each session.
8. The instruments must be left in a suitable state (“standard conditions”) for the next user. All problems with the instrument must be reported in the log book.
9. The rooms must be kept neat and tidy. Specimen holders must be put away properly.
10. Specimens left in the microscope rooms will be discarded.
11. The computers in the facility are not to be used for web-surfing or playing audio files.
12. No software of any kind may be installed on the computers without authorization.

Instrument-Specific Rules

1. Certification for this instrument is obtained by passing the 1-credit course MSE 595T.
2. Latex gloves must be worn while handling any specimen, specimen-holder or other object to be inserted in the microscope.
3. All specimens must be properly loaded in approved specimen-holders.

4. The microscope is to be left in the following standard conditions:

- Gun Filament knob *Fully counterclockwise*
- High Tension *Off; 200kV selected*
- Condenser Aperture *In and centered (any aperture is OK)*
- Spot Size *#3*
- Gun *Aligned*
- Condenser Lens *Overfocused, set to fill screen*
- Objective Aperture *Out*
- Field Limiting Aperture *Out*
- X-Ray Detector *Retracted*
- Mode *MAG 1*
- Focus *Objective Lens Current 7.04 mA.*
- Stage Tilt *ZERO*
- Specimen *Out; specimen holder properly stored.*
- Film Camera *Fully loaded, pumped, stock number updated*
- Fresh film cassette *Fully loaded, in desiccator*
- TV/Digital Camera *Screen retracted*
- Vacuum *Ready*
- Panel lights *Off*
- CRT *Fully dimmed*