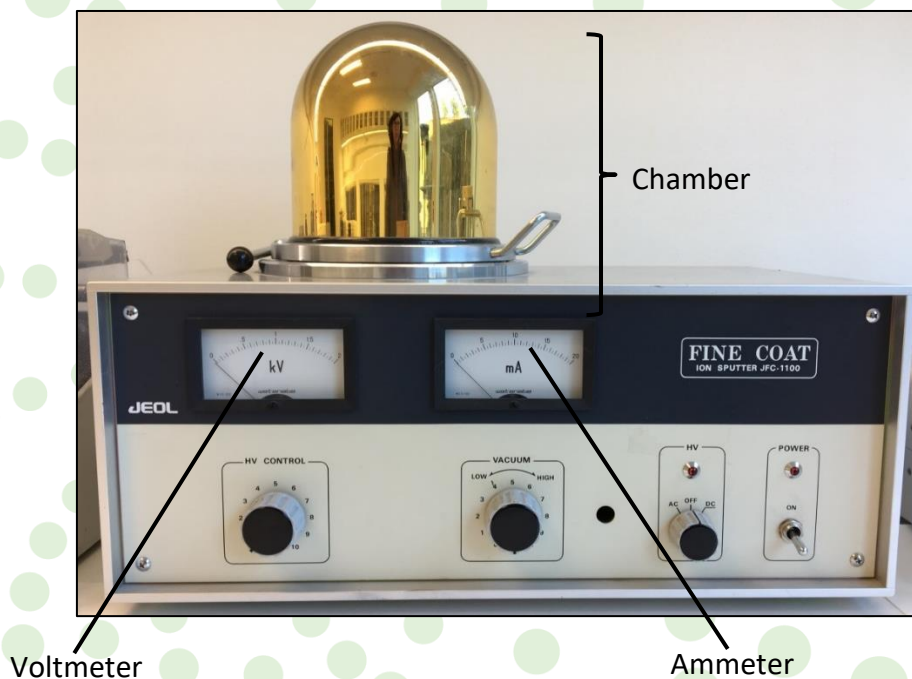


Metal coater –

Jeol Fine Coat Ion Sputter JFC-1100

User instructions

Operation of this equipment is restricted to trained personnel familiar with the user instructions, general safety precautions, and laboratory rules. Contact the laboratory manager or your supervisor/group leader to get permission to use this equipment.



Routine for sample coating

Use gloves to handle the samples in order to avoid contamination of your sample and of the chamber.

1. Connect the power cord to the electricity plug.
2. Open the chamber and place the sample(s) on the sample holder according to Fig.1.



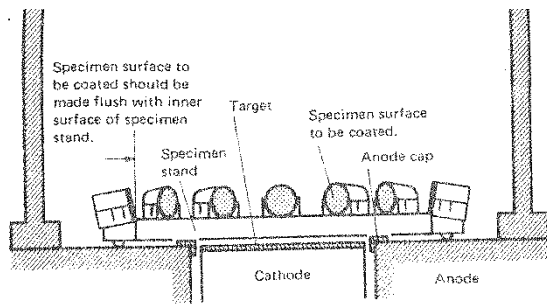


Fig. 1: How to mount specimens for coating.

3. Set the knobs and controls on the panel as follows:

POWER	OFF
HV SWITCH	OFF
HV CONTROL	0
VACUUM CONTROL	10

IMPORTANT: rotate the knobs slowly.

4. Set the POWER switch to ON (the lamp lights up).
5. After about 3 minutes, set the HV switch to DC (the lamp lights up).
6. Gradually turn the HV CONTROL knob clockwise until the voltmeter indicates 400 - 500 V (the knob is positioned at 2 - 3 and the ammeter indicates less than 2 mA).

NOTE: If the ammeter reading is over 2 mA, it indicates a lack of vacuum degree. In this case, turn off the HV switch and continue evacuation for a while.

7. Rotate the VACUUM knob counterclockwise until the ammeter indicated 5 – 10 mA at a voltage reading from 1200 V (the knob is positioned at 7.5 – 8). The interior of the bell jar turns light red, indicating that coating is under way (not easy to see in our instrument due to the layer of coating in the glass and illumination in the room).
8. Continue coating 4 – 10 minutes. This gives sufficient coating for microscopy.
9. Set the HV CONTROL knob to 0.
10. Set the HV switch OFF (the lamp goes off).
11. Turn the VACUUM knob clockwise.
12. Set the POWER switch to OFF (the lamp goes off). Air leaks into the bell jar with a hissing sound (which lasts for about 40 seconds).
13. Open the chamber and remove your sample(s).

NOTE: Remember that coating is directional and you may need to rotate your stub(s)/sample(s) and repeat steps 3 to 13 in order to achieve coating of all surface of your specimen.

14. Close the chamber and disconnect the power cord from the electricity plug.