

Instructions for Using the Sputter Coater

1. Insert you sample
2. Wipe off the O-ring
3. Make sure that the plastic cylinder and lid are seated correctly
4. Select the time you wish to sputter coat

Checking for Leaks

1. Make sure that the gas adjust valve (on the left side) is closed down all the way
2. Open the main valve of the argon tank
3. If necessary, adjust the flow rate to ~ 5 psi
4. Turn on the power
5. Watch as machine pumps down to 0.05 mBar

Note: Around 0.25 mBar the green light on the "Ready/Test" switch will come on

Flushing the Chamber

6. Slowly open the gas adjust valve to allow argon to enter the chamber
7. Keep the valve open and let the pressure reach 2 mBar
8. Hold the pressure at 2 mBar for 10-15 seconds
9. Close the gas adjust valve
10. Wait for the pressure to pump down to below 0.1 mBar
11. Repeat steps 7-11 two more times

Establishing a Plasma

14. Slowly open the gas adjust valve so that the pressure reads 0.1-0.2 mBar
15. Press the "Ready/Test" switch while you fine tune the gas adjust valve so that the current reads between 10-20 mA.

Key: If you turn the gas adjust knob too quickly, the current will spike off the scale, the red light on the "Overload/Reset" switch will come on, and you will have to close the gas adjust valve and start again

Key: You should see a purple haze inside the chamber

Coating the Samples

16. Release the "Ready/Test" switch
17. Press the "Start" switch
18. You may do a second coating if required without repeating any steps

19. Turn off the sputter coater
20. Turn off the main valve of the argon tank