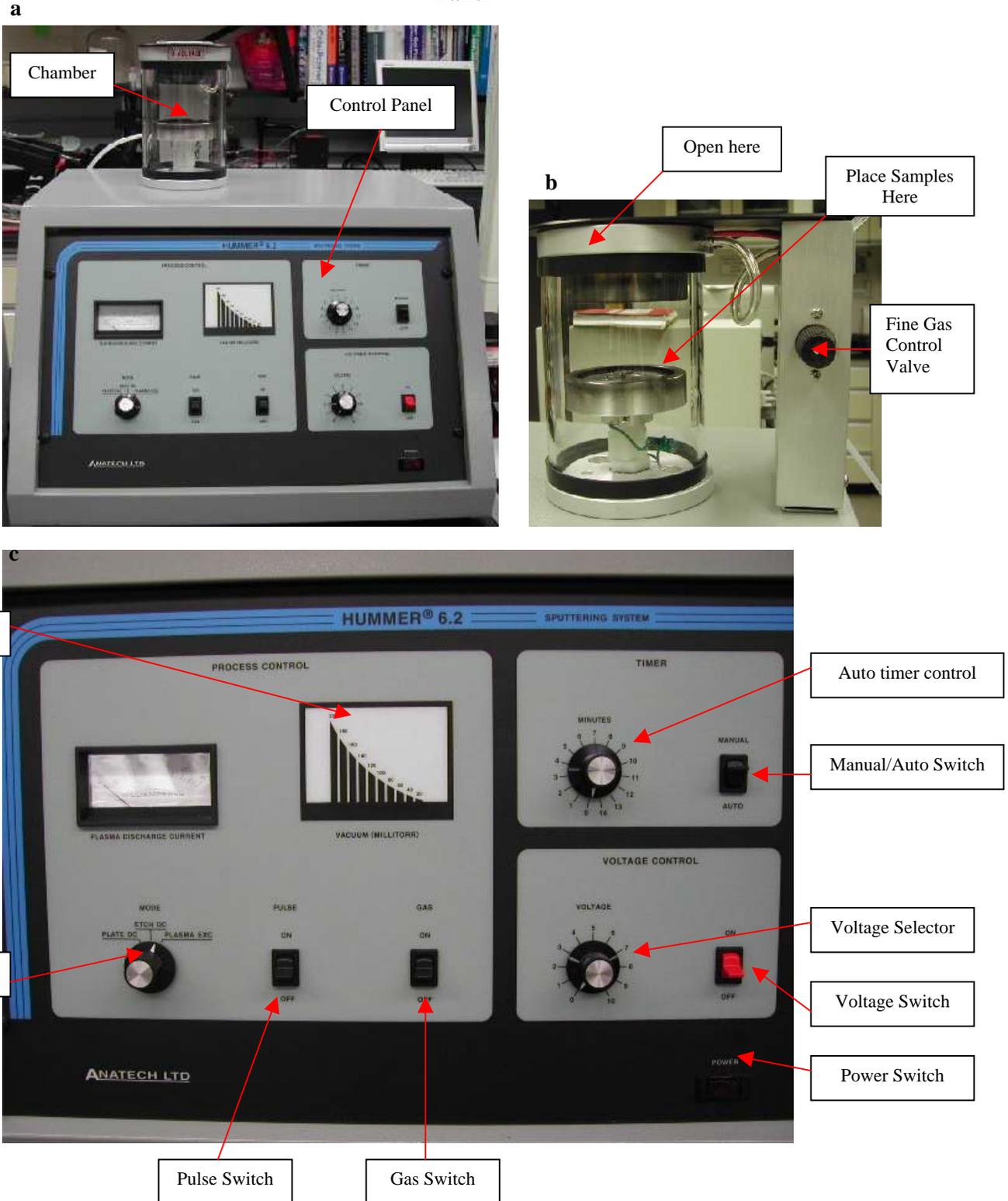


# Hummer 6.2 Sputter Coater Plating Mode Operating Instructions:

**Note: this does not take the place of reading the manual**

**Figure 1: Sputtering Chamber and Control Panel**



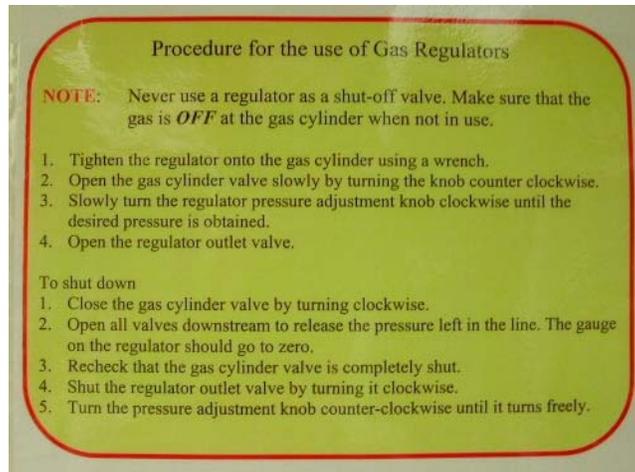
**Part 1: Plating Mode** (used for coating samples for SEM use)

1. Turn off power, if necessary.
2. Open sputtering chamber and place your specimens on the stage (see figure 1)
3. Replace glass and close the sputter chamber
4. Set the controls on the control panel (displayed on figure 1c) to the following:

Control	Setting
Main Power	Off
Voltage Switch	Off
Voltage Selector	0
Gas Switch	Off
Manual/Auto	Manual
Pulse Switch	Off
Mode Switch	Plate

5. Turn on the Main Power switch. This will turn the vacuum on.
6. Screw the plastic tubing into the T fitting hanging from the nearest post.
7. Set the regulator on the argon gas tank in the corner of the room to 5-6 psi (if you are unfamiliar with this process, refer to the instructions in figure 2, which are also posted on the wall next to the gas tank).

**Figure 2:  
Gas Regulator  
Procedures**



8. Flush the regulator chamber with gas 3 times, using the following process:
  - a. Allow chamber to reach 30 millitorr (hold down the top of the chamber if the pressure doesn't decrease)- this could take 3-5 minutes.
  - b. Turn on the Gas switch
  - c. Allow chamber to reach a pressure of 200 mtorr
  - d. Turn off the gas switch
  - e. Allow the chamber to reach a pressure of 40-60 mtorr
9. Adjust the fine gas control valve (see figure 1b) and the Voltage selector until the chamber is stable at 15 mA and 60-80 mtorr.
10. If you wish to use the automatic timer, set the auto timer control to the desired time and switch the manual/auto switch to 'auto'.
11. If you wish to use pulse mode, turn on the pulse switch at this time
12. When the plating has finished, follow the shutdown procedure:
  - a. Set voltage selector to 0
  - b. Turn voltage switch off
  - c. Turn gas switch off

- d. Set the manual/auto switch to manual
- e. Turn pulse switch off
- f. Turn main power off
- g. Allow system to vent to atmosphere
- h. Remove your samples from the chamber
- i. Turn off the main process gas valve on the argon tank.
- j. Clean the chamber with kimwipes and 2-propanol.