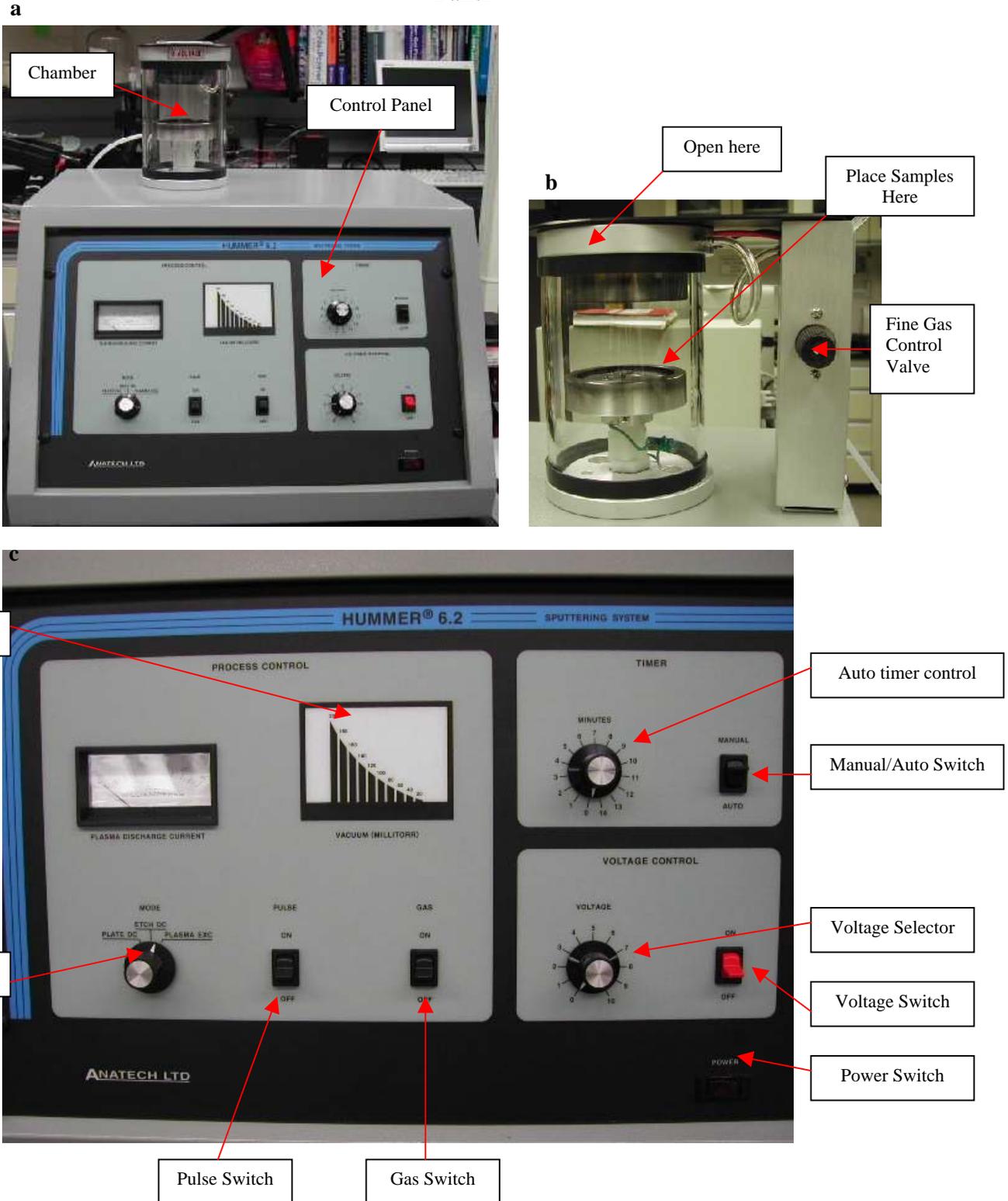


# Hummer 6.2 Sputter Coater Plasma Mode Operating Instructions:

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

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



### Part 3: Plasma Processing

1. Turn off power to the sputter coater, if necessary.
2. Open the sputtering chamber, and install the aluminum etch ring if you will be etching for more than 2 minutes.
3. Put your samples on the stage, replace glass, and close the sputter chamber.
4. Set controls to the following:

<b>Control</b>	<b>Setting</b>
Main Power	Off
Voltage Switch	Off
Voltage Selector	0
Gas Switch	Off
Manual/Auto Switch	Manual
Pulse Switch	Off
Mode Switch	Plasma

5. Turn on main power
6. Let the vacuum reach about 20 mtorr.
7. Set the regulator on the argon gas tank in the corner of the room to 5-6 psi.
8. Turn the gas switch on, and adjust fine gas control valve until you reach 160 mtorr.
9. Turn voltage switch on, and adjust fine gas control and the voltage selector until you reach a stable 20 mA and 160 mtorr.
10. If you wish to use the automatic timer, set timer control to the desired time and toggle manual/auto switch to 'auto'.
11. If you wish to use pulse mode, turn the pulse switch on at this time.
12. When your etching is 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.