Standart Operating Procedure for OXFORD Plasma Systems

1. For starting up these systems contact with cleanroom specialists.

2. By the time the system is starting you can get your samples ready. To put your sample into the system, you should stick your samples onto a wafer. For the PECVD you may directly put your samples in. (ask cleanroom specialists)

3. Also active areas of the systems are different from each other. (ICP-RIE : 6”, DRIE : 4”, PECVD : 6”) You have to take this into account while placing your samples.

**Sticking procedure:**

- **a.** Drop as small amount as photoresist (AZ5214E preferred) onto the wafer.
- **b.** Put your sample onto the photoresist drop and by moving the sample, make the photoresist spread to whole back side of your sample.
- **c.** Bake the wafer by putting it onto the hotplate at 110°C at least 2 minutes.
4. When the system is ready, you will see this window on the system’s computer screen.

5. Click “STOP” and then “VENT” icons to vent the loadlock.
6. When the loadlock is vented open the loadlock chamber and put the wafer which you stucked your samples onto the arm side of the wafer touching to the screws on arm.

7. Close the loadlock lid and click “EVACUATE” icon. Wait until the loadlock reaches transfer pressure and green arrows on left-upper corner of the loadlock icon appears.
8. Select the recipe you are going to use. Click “PROCESS” icon and then “RECIPES” icon.

9. Click “LOAD” icon then select the recipe and click “OK”
10. If you want to check or change recipe parameters, click on the recipe and then click “EDIT STEP”. After editing click “OK” to save initial parameters.

11. Click “RUN” to start the recipe.

12. When the recipe is started, the wafer automatically goes into the main chamber, the parameters are automatically set, process is done and then wafer is taken out to the load lock.
13. When the wafer is at load lock click “STOP” then “VENT” to vent the load lock and take the sample out.

14. If the process is done vacuum the load lock, fill the logbook and ask cleanroom specialist to shut down the system.