

PECVD operating procedures

Film Deposition

1. Preheat the substrate (S-setp) and chamber wall (W-setp). Be sure to press "Download" instead of simply pressing return. Acceptable temperatures for substrate: 150 – 350C. Wall temperature should always be 60C. Note: film quality degrades as temperature is decreased.
2. Click "Vent" to vent the chamber
3. Click "Open" once it appears on the screen to the left of the chamber graphic
4. Load samples onto the center of the chuck. CAUTION: **The chuck is very hot. Do not let your gloves, paper, or other flammable materials near the chuck.** Note: the chamber will close automatically after remaining open for ~10min
5. Click "Close" and then confirm by clicking "Close" in the pop-up window. The chamber will begin pumping down once lid is closed. **Make sure there is nothing blocking the closure of the lid.** Keep fingers away from the baseplate as the lid closes
6. Wait until: temperatures reach setpoint and pressure <2E-2 torr.
7. Click "Start Batch," and choose the desired recipe from the pull-down menu
8. Edit the process time. Plasma power must remain at 25V
9. Click "Start," the process will begin automatically
10. Upon completion of the process click "Ok" in the pop-up window
11. Click "Vent" to vent the chamber. Click "Open" once it appears
12. Remove your samples from the chuck

Finishing Equipment Use

1. Pump down the chamber (this happens automatically after closing the chamber)
2. Set the temperature back to 0C (S-setp and W-setp)