

Operation of PECVD

Click on User Login

Select Operator, password: op, click Log in

CLICK ON Process tab

Click on Job History to verify the most recent film process

- Previous run is SiO₂ or SiNx: To deposit SiO₂ or SiNx, select recipe and change the deposition time as needed. To deposit aSi, perform chamber clean without wafer (recipe: Clean), perform Predep_aSi without wafer before running your samples.
- Previous run is aSi: To deposit aSi, select recipe and change deposition time as needed. To deposit SiO₂ or SiNx, perform chamber clean without wafer (recipe: Clean), perform Predep_SiO₂ or Predep_SiNx without wafer before running your samples.
- Previous run is Clean : Perform predep_xxx where xxx is SiO₂, SiNx, aSi, SiC as needed based on what film you want to deposit.

Click on Start Job

Select recipe

Enter job id(such as Predep_SiO₂, SiO₂, SiNx, aSi, etc) and click Start Job to start the process.

Click on No Transfer if this is for Clean or Predep.

Select process with empty chamber if a question pop-up.



If deposition rate is unknown, a rate check run is needed to determine the deposition rate in order to accurately deposit desired thickness on your samples

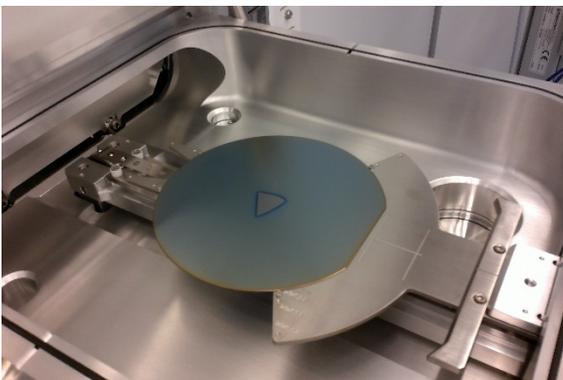
To change deposition time, click on RECIPE tab and load the recipe from the list. Open tabular view of the recipe and change the time of the deposition column. Note: the deposition column is the one with HF number (RF High Frequency power).

	1. < Initial >	2. < Chuck >	3. Process Step	4. Process Step	5. Loop 3 times	6. < Dechuck >	7. < End >
Time	0:10.0	0:30.0	1:00.0	1:30.0		0:30.0	1:30.0
Pressure	10	10	5	5		10	10
SFB		0	30	0		0	
C4FB		0	0	25		0	
O2		0	0	0		0	
N2		0	0	0		0	
He		3	0	0		3	
NH3		0	0	0		0	
Ar		0	0	0		25	
Bias		50	50	50		0	
ICP		100	150	150		0	

Follow above steps to process your samples. Note: unclick No Transfer to process your samples.

Open load lock lid

Load a 6" (only 6") Si wafer on load lock arm end effector and make sure the wafer is within the stops on the arm end effector with the major flat is parallel to the line (see pic)



Close load lock lid

After the process is complete, wafer is automatically transferred back to load lock.

Click on AL Vent to vent load lock.

Nominal Deposition Rate:

SiO₂ = 950 Å/min, SiN_x = 224 Å/min, aSi = 100 Å/min, SiC = 110 Å/min

Contact Paul Horng (x4827, horng@udel.edu) for assistance