

Advanced PECVD-OXIDE (HF n-1.46 25nm/min)				Advanced PECVD Typical Film Properties
SiO2 deposition~2800A, T=300C				Calibrated every 2-4 weeks
Step1: OXIDE COAT				Check for the latest update on UCSB Nanofab WIKI
	Name	Value	Changeable	
	Process pressure	800 mtorr	N	
	RF point	30 W	N	
	stabilization time	15 seconds	N	
	step time(m)	10	Y	
	step time(s)	0	Y	
	2%SiH4 %He	600 sccm	N	
	N2O	1420 sccm	N	
Step2: OXIDE DEPOSITION				SIO2~2800A Typical Film Properties
	Name	Value	Changeable	Deposition rate~28nm/min
	Process pressure	800mtorr	N	Refractive index@632.8nm=1.472
	RF point	30W	N	Stress=-270MPa
	stabilization time	15 seconds	N	HF etch rate=570nm/min
	step time(m)	10	Y	
	step time(s)	0	Y	
	2%SiH4 %He	600 sccm	N	
	N2O	1420 sccm	N	
Step3: STANDARD PLASMA CLEAN				
1. pump down				
	Name	Value	Changeable	
	stabilization time	15 seconds	N	
	step time(m)	0	N	
	step time(s)	30	N	
2. Pre-purge				
	Name	Value	Changeable	
	purge	1 (Yes/No)	N	
	stabilization time	15 seconds	N	
	step time(m)	1	N	
	step time(sec)	0	N	
3.1 High Pressure				
	Name	Value	Changeable	
	Cload position	50%	N	
	Ctune position	50%	N	
	DriveMatch	1 (Yes/No)	N	
	Process pressure	600 mtorr	N	
	RF setpoint=300	300 W	N	
	Stabilization time	35 seconds	N	
	step time(m)	ENTER TIME	Y	For 2min(coat+deposition) run 1min Standard Plasma clean
	step time(s)	0	Y	
	CF4/O2(5)	500 sccm	N	