

PECVD-SiO2 standard recipe-1000A			PECVD1 SION 3000A Typical Film Properties
1. Chamber Clean (wet clean) WET CLEAN Wipe clean upper chamber walls with DI Wipe off upper chamber walls with IPA	2. Chamber (clean+coat) STAMB_17 step1: Initial t=10", p=2x10-2 T=250C step2: N2 purge t=30" p=300mT step3: evacuate, base pressure=2x10-2, t=10" step4:loop step5: gass stabilization, t=30" step6:etch chamber, t=30' step7:evacuate, t=10" step8:N2 purge step9:evacuate step10:loop step11:SION gass stabilization step12:SION deposition(200A coat) , t=1"53.6" step13:evacuate step14:N2purge, t=30" step15:end	3.LS SION Deposition STAMB_18 step1: Initial t=10" step2: N2 purge t=30" step3: evacuate, t=10" step4:loop step5: SiO2 gass stabilization, t=30" step6:SiO2 deposition Time=22' Temperature=250°C Pressure=900mT Gas Flow: SiH4=150sccm N2O= 17sccm N2=125sccm NH3=1.53 Power: RF1=22W step7:evacuate, t=10" step8:N2 purge t=30" step9:evacuate t=10" step10:loop	Calibrated every 2-4 weeks Check for the latest update on UCSB Nanofab WIKI SION-3000A Typical Film properties Deposition rate~14.5nm/min Refractive index@632.8nm=1.714 Stress=145MPa HF etch rate=396nm/min

Automatic - Process : STAM_B18 Step: 7

Description: SION Dep 5000 A		Process Pump: LOVAC	
GAS CHANNELS			
	Setpt	Actual	
SiH4	150	148	
N2O	17	12	
N2	125	124	
NH3	1.53	1.54	
RF GENERATORS			
RF1			
RF Control	POWER		
RF Config	PE		
	Setpt	Actual	
Power	22	21	
Ref		0.0	
DC		28	
TEMPERATURE		Setpt	Actual
Channel 2	250	248	
Pressure(mTorr)		Setpt	Actual
	900	902	
Time	Setpt	Elapsed	Left
	22:00.0	00:11.0	21:49.0