

PECVD1-SiN standard recipe-1000A			PECVD1 SIN 1000A Typical Film Properties
<b>1. Chamber Clean ( wet clean)</b> <b>WET CLEAN</b> Wipe clean upper chamber walls with DI Wipe off upper chamber walls with IPA	<b>2. Chamber (clean+coat)</b> <b>30CLN_SN</b> 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:SiN gass stabilization step12:SiN deposition( 200A coat) step13:evacuate step14:N2purge, t=30" step15:end	<b>3.SiN Deposition</b> <b>SiN_10</b> step1: Initial t=10" step2: N2 purge t=30" step3: evacuate, t=10" step4:loop step5: SiN gass stabilization, t=30" <b>step6: SiN deposition</b> <b>Time=9'28.1"</b> <b>Temperature=250°C</b> <b>Pressure=900mT</b> <b>Gass Flow:</b> <b>SiH4=150sccm</b> <b>N2=450sccm</b> <b>NH3=1.54sccm</b> <b>Power:</b> <b>RF1=22W</b> 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  <b>SIN-1000A Typical Film properties</b> Deposition rate~11nm/min Refractive index@632.8nm=1.94 Stress~509MPa HF etch rate=85nm/min Particle count ( min=70, max=469) Mostly small particles size (0.160-0.213)um

Automatic - Process : SIN10 Step: 6

<b>Description</b>	SiN Dep 1000 A		
<b>Process Pump</b>	LOVAC		
<b>Deposition ID</b>	SIN250		
<b>Deposition [Å]</b>	1000		
<b>TEMPERATURE</b>			
	Setpt	Actual	
Channel 2	250	248	
<b>GAS CHANNELS</b>			
	Setpt	Actual	
SiH4	150	149	
N2	450	450	
NH3	1.54	1.56	
<b>RF GENERATORS</b>			
	RF1		
<b>RF Control</b>	POWER		
<b>RF Config</b>	PE		
	Setpt	Actual	
Power	22	21	
Ref		0.0	
DC		11	
<b>Time</b>			
	Setpt	Elapsed	Left
Time	09:28.1	08:16.0	01:12.1