

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= 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

