

PECVD1 SiOxNy ~3300A Recipe			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: SiON gass stabilization, t=30" step6:SiON deposition Time=22' Temperature=250°C Pressure=900mT Gass 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~14.6nm/min Refractive index@632.8nm=1.718 Stress=135MPa HF etch rate=415nm/min Particle count (min=70, max=740) Mostly small size particles (0.160-0.213)um Uniformity within the wafer (98.0-99.3)%
Should be t~1min21.37sec→			

