

PECVD-Turner05-LS SIN recipe-850A			PECVD1 LS SIN 850A 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) TURCLN 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:LSSIN gass stabilization Should be t=2min 16sec → step12:LSSIN deposition (200A coat) , t=2'29.7" step13:evacuate step14:N2purge, t=30" step15:end	3.LS SIN Deposition TURNER05 step1: Initial t=10" step2: N2 purge t=30" step3: evacuate, t=10" step4:loop step5: LSSIN gass stabilization, t=30" step6:LSSIN deposition Time=10min30sec Temperature=250°C Pressure=900mT Gass Flow: SiH4=150sccm N2=59sccm 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 LS SIN 850A Typical Film properties Deposition rate~8.41nm/min Refractive index@632.8nm=1.966 Stress=230MPa HF etch rate=60nm/min Particle count (min=50, max=250) Mostly small size particles (0.160-0.213)um Uniformity within the wafer (99.2-99.5)%

