Ning Cao, Staff Engineer, Nano-Fabrication Lab, ECE Dept., UCSB

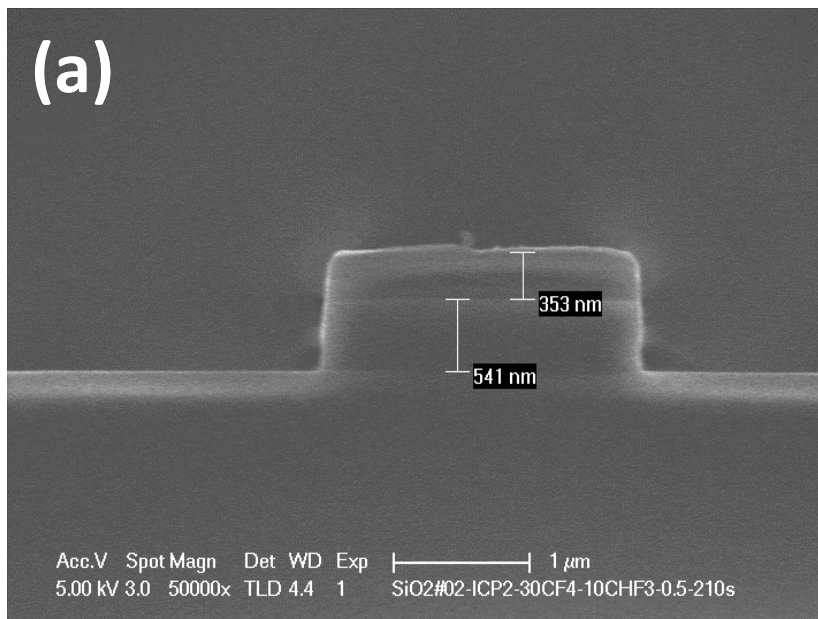
SiO2 Etch using ICP2 (no O2)

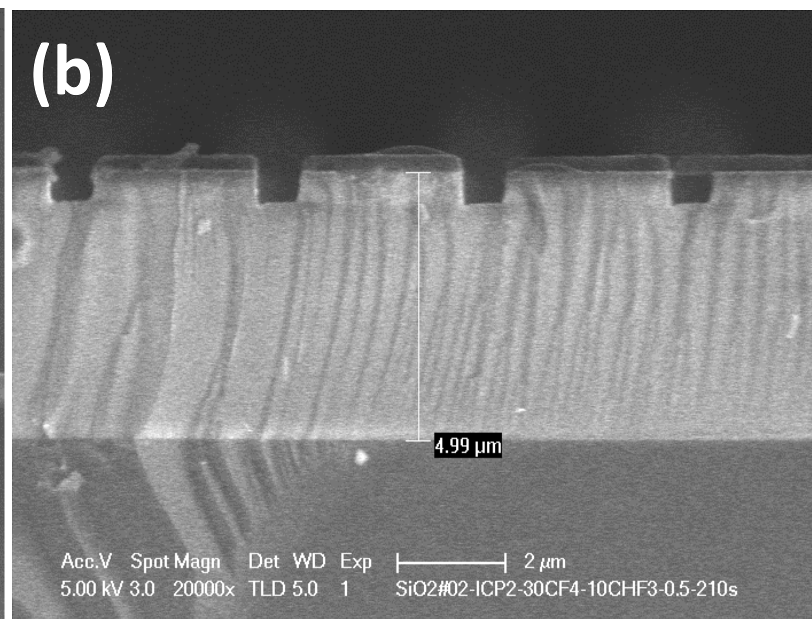
Recipe: 0.5Pa, 50/900W, CHF3/CF4=10/30 sccm, time=3.5 min (210 sec)

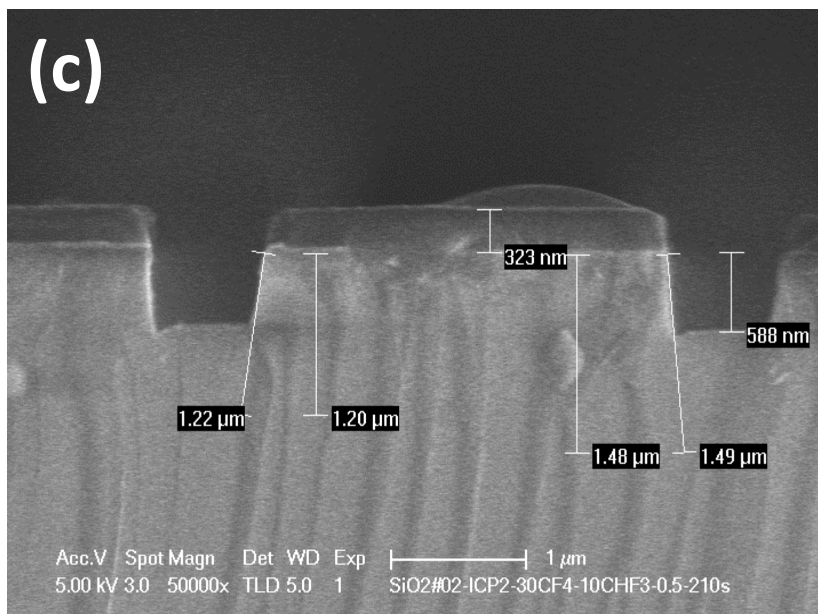
1) Run#01 (10-5-2018)

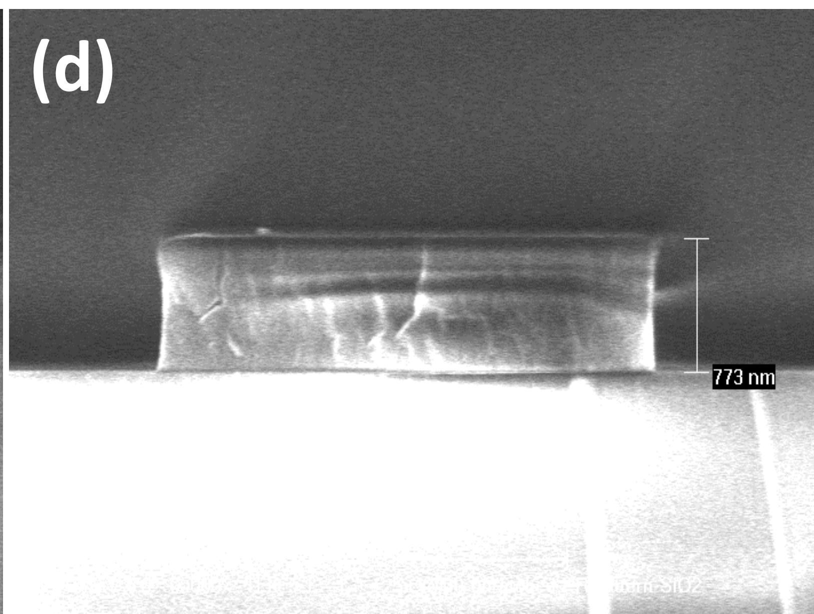
Etch rate=160 nm/min, Etch Selectivity (SiO2/PR) =1.2, Averaged Sidewall Angle=82.1°.

Figure 1 (a), (b), and (c) SiO2 etch profile; (d) PR etch-mask profile.






(c)
323 nm
588 nm
1.22 µm
1.20 µm
1.48 µm
1.49 µm
Acc.V Spot Magn Det WD Exp
1 µm
5.00 kV 3.0 50000x TLD 5.0 1 SiO2#02-ICP2-30CF4-10CHF3-0.5-210s


(d)
773 nm