Use of ultrathin atomic layer deposited capping layers to increase stability in thermally processed metalcone thin films

Vamseedhara Vemuri, Nicholas C. Strandwitz*

Supplemental:

1)

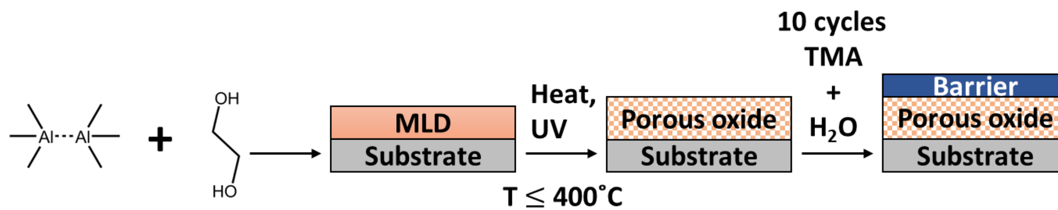


Figure 1: Schematic of MLD films showing growth, thermal processing, and deposition of 10 cycles ALD barrier film

2)

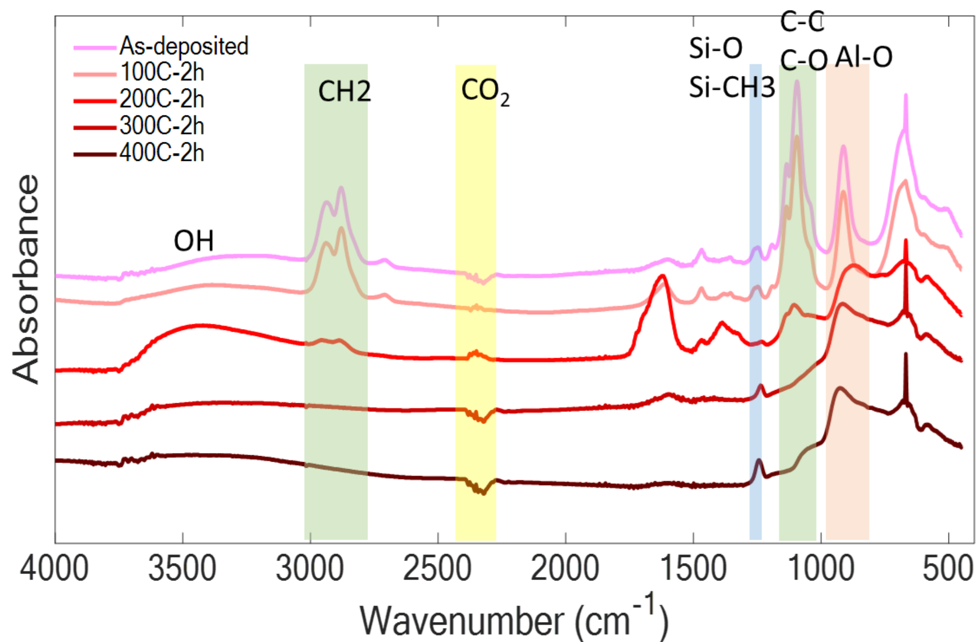
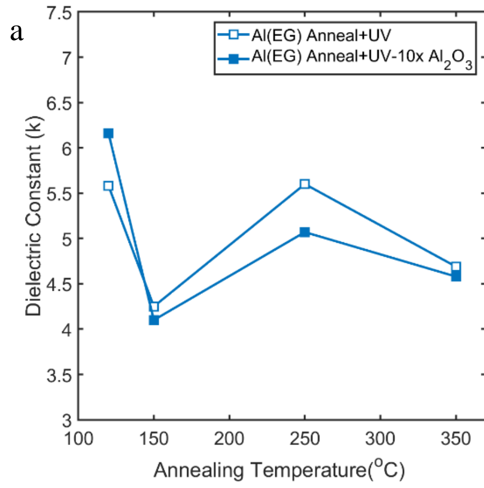


Figure 2: Ex-situ FTIR spectra of as deposited and thermally processed Alucone films. Thermal processing is done at 5 ̊C/min in nitrogen atmosphere for 2 hours

3)



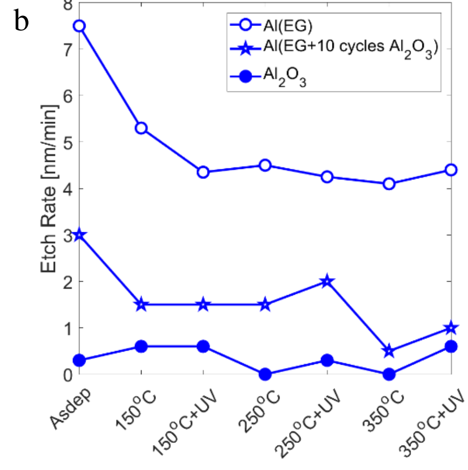


Figure 3: a) Dielectric constant Vs Annealing temperature of as deposited and thermally processed Alucone films with and without an ALD layer and b) CF4/O2 plasma etch rate of Alucone films with and without an ALD layer compared to Al_2O_3