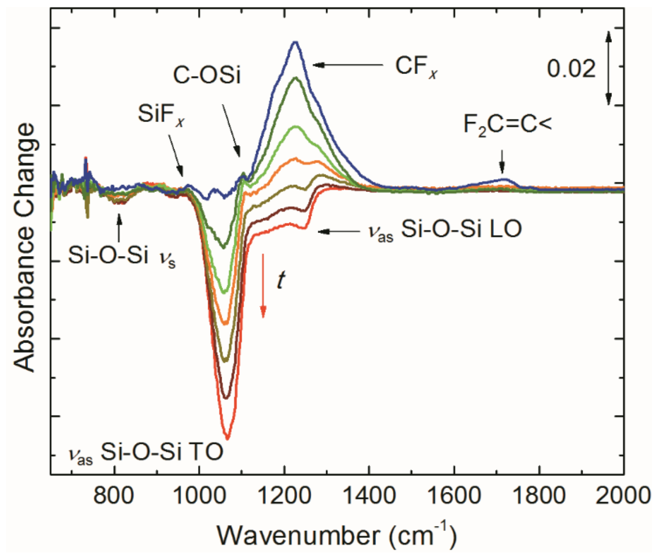

Figure 1: Infrared absorbance change during one complete ALE cycle. Spectrum in blue corresponds to CF_x deposited onto SiO_2 from a C_4F_8/Ar plasma for 10 s with a C_4F_8 flow rate of 4 sccm. The remaining 6 spectra correspond to 10 s increments (dark green to red) of Ar plasma exposure.

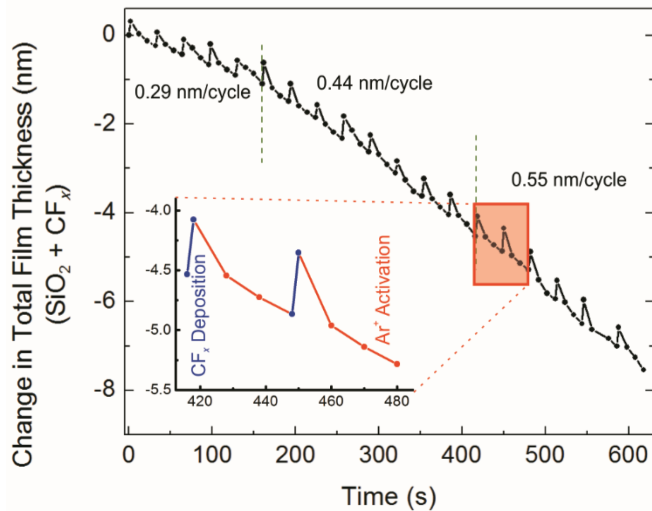

Figure 2: Change in total film thickness obtained from 4-wavelength ellipsometry for 19 complete ALE cycles. The inset is a shows an enlarged view for the CF_x deposition (—) and the Ar plasma activation (—) steps for the 14th and 15th ALE cycles. In each deposition half-cycle, CF_x was deposited from a C_4F_8/Ar plasma for 2 s with a C_4F_8 flow rate of 3 sccm. The Ar plasma activation step was 30 s with the thickness recorded after every 10 s.