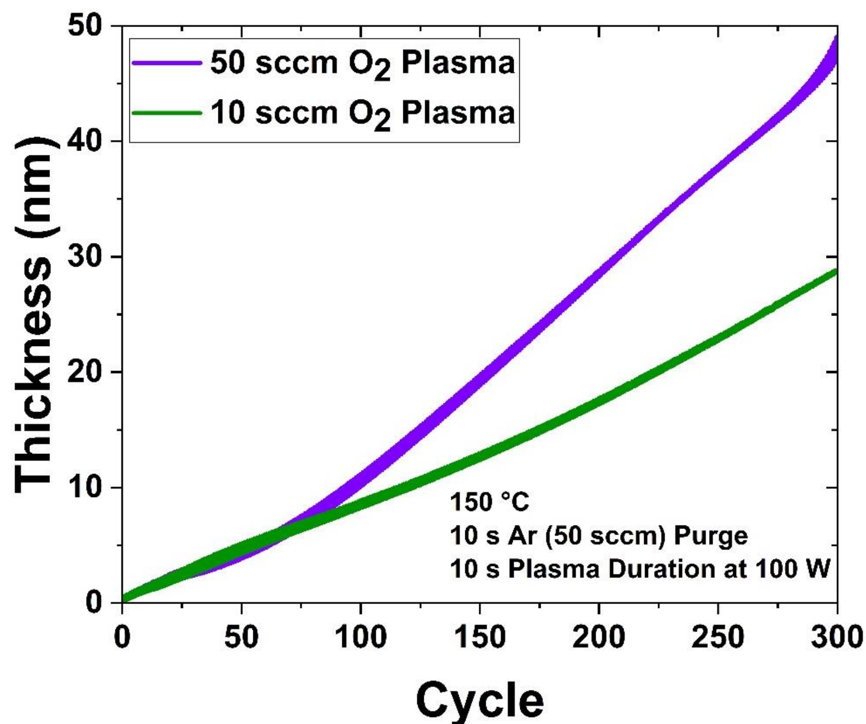

Figure 1: *in situ* ellipsometry monitored Vanadium Oxide thin film growth on Si at 150°C in a hollow cathode plasma (HCP) assisted atomic layer deposition (ALD) chamber under 100 W (a) Oxygen (50 sccm) and (b) Oxygen (10 sccm) plasma

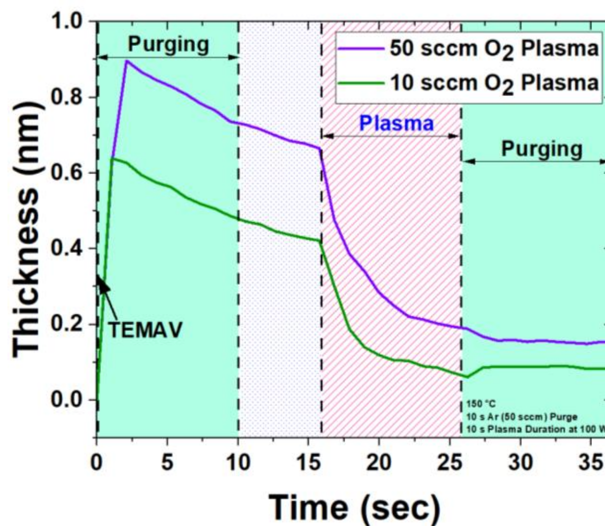

Figure 2: *in situ* ellipsometry monitored average unit ALD cycle of Vanadium Oxide thin film growth on Si at 150°C in a hollow cathode plasma (HCP) assisted atomic layer deposition (ALD) chamber under 100 W (a) Oxygen (50 sccm) and (b) Oxygen (10 sccm) plasma