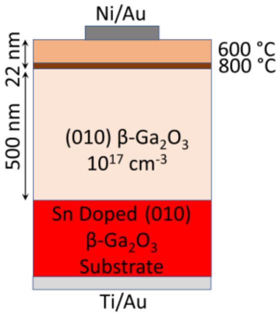

Fig. 1: Schematic Diagram of the hybrid dielectric

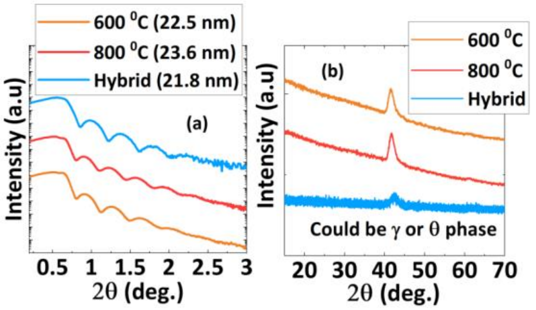

Fig. 2: (a) X-ray reflectivity (XRR) and (b) Grazing Incident X-ray diffraction (GIXRD) plot of the deposited dielectric films

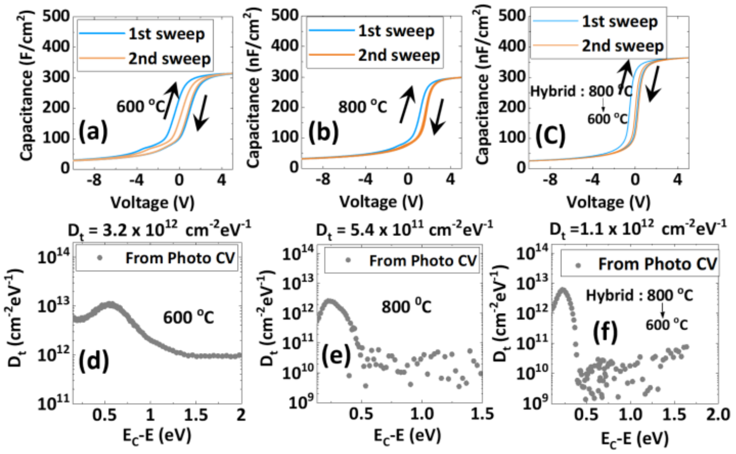

Fig. 3: CV Hysteresis and average trap density plot of (a)(d) 600 °C (b)(e) 800 °C & (c) (f) hybrid dielectric based MOS structure.

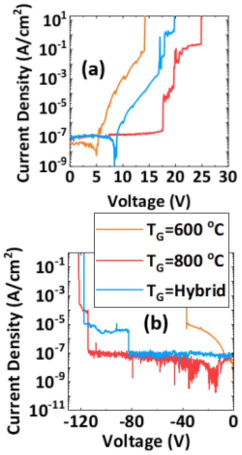

Fig. 4: IV characteristics of the three dielectrics in (a) forward and (b) reverse direction.

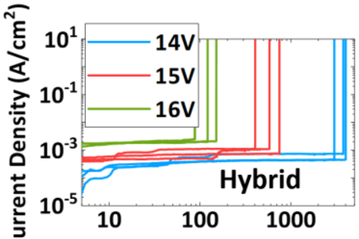

Fig. 5: Representative TDDB plot of the hybrid dielectric

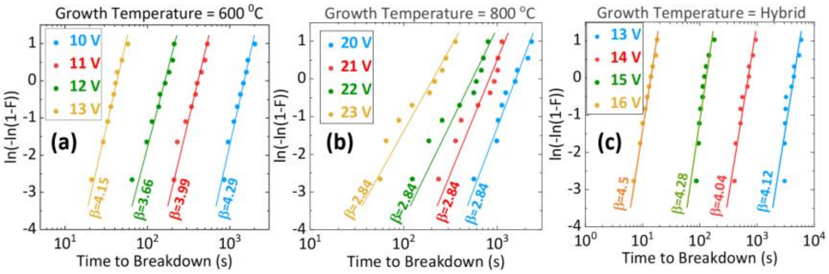

Fig. 6: TDDB Weibull distribution of the (a) 600 °C, (b) 800 °C & (c) Hybrid dielectric.

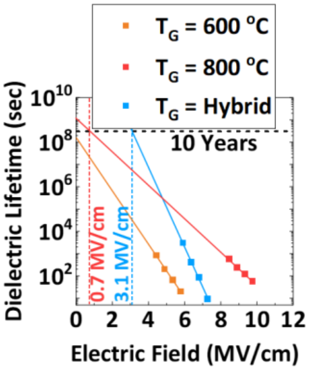

Fig. 7: Lifeime projection of the three dielectrics based on E-model