

Supplementary Information

Low-Voltage Operated Organic Thin Film Transistors and Integrated Devices with Photo-Cured and Patterned Siloxane Based Organic-Inorganic Hybrid High-k Dielectrics

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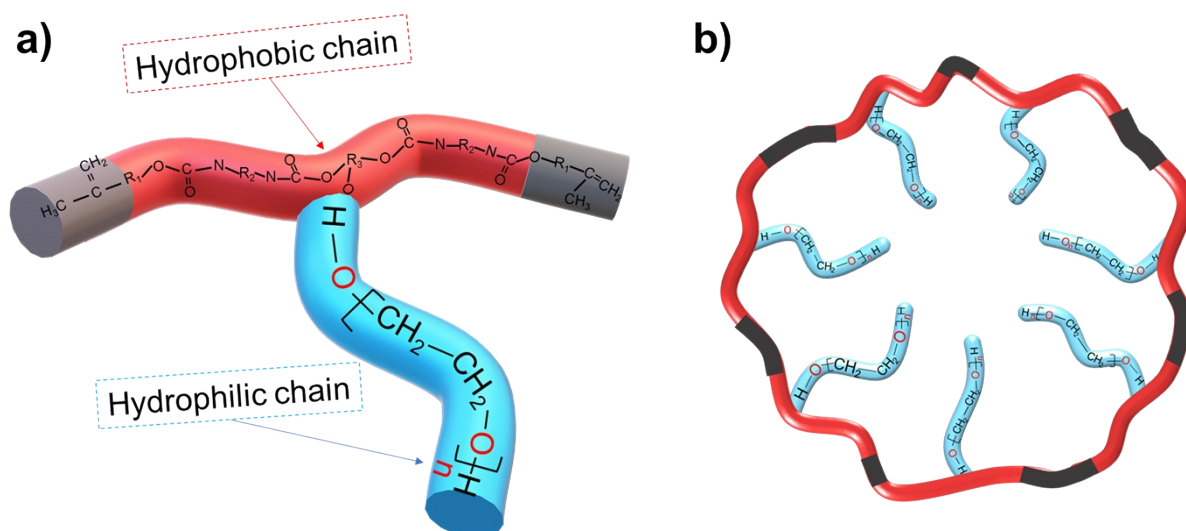


Fig.. S1. Schematic structure of a) the AUP1450 and b) the polymerized AUP1450 (P-AUP1450).

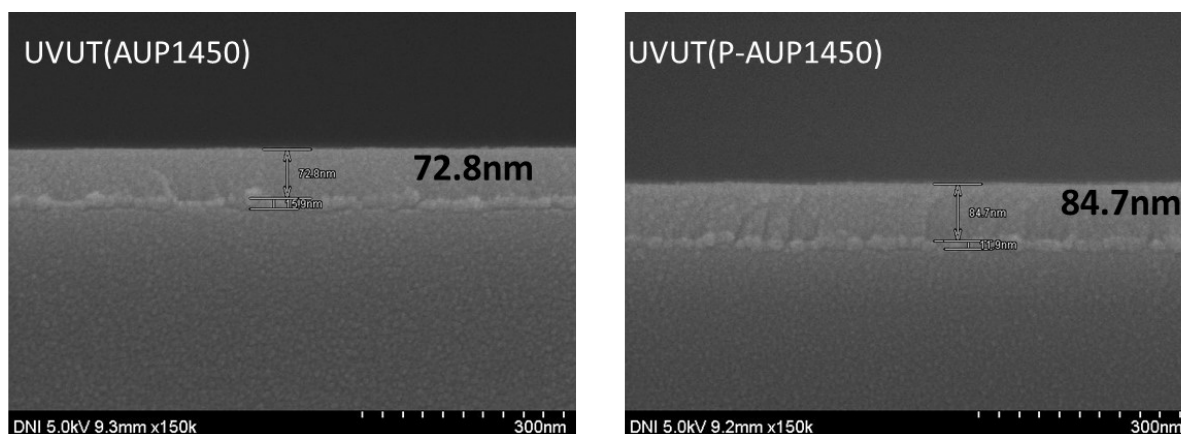


Fig. S2. Cross-section SEM image of UV cured UVUT(AUP1450) and UVUT(P-AUP1450) layers.

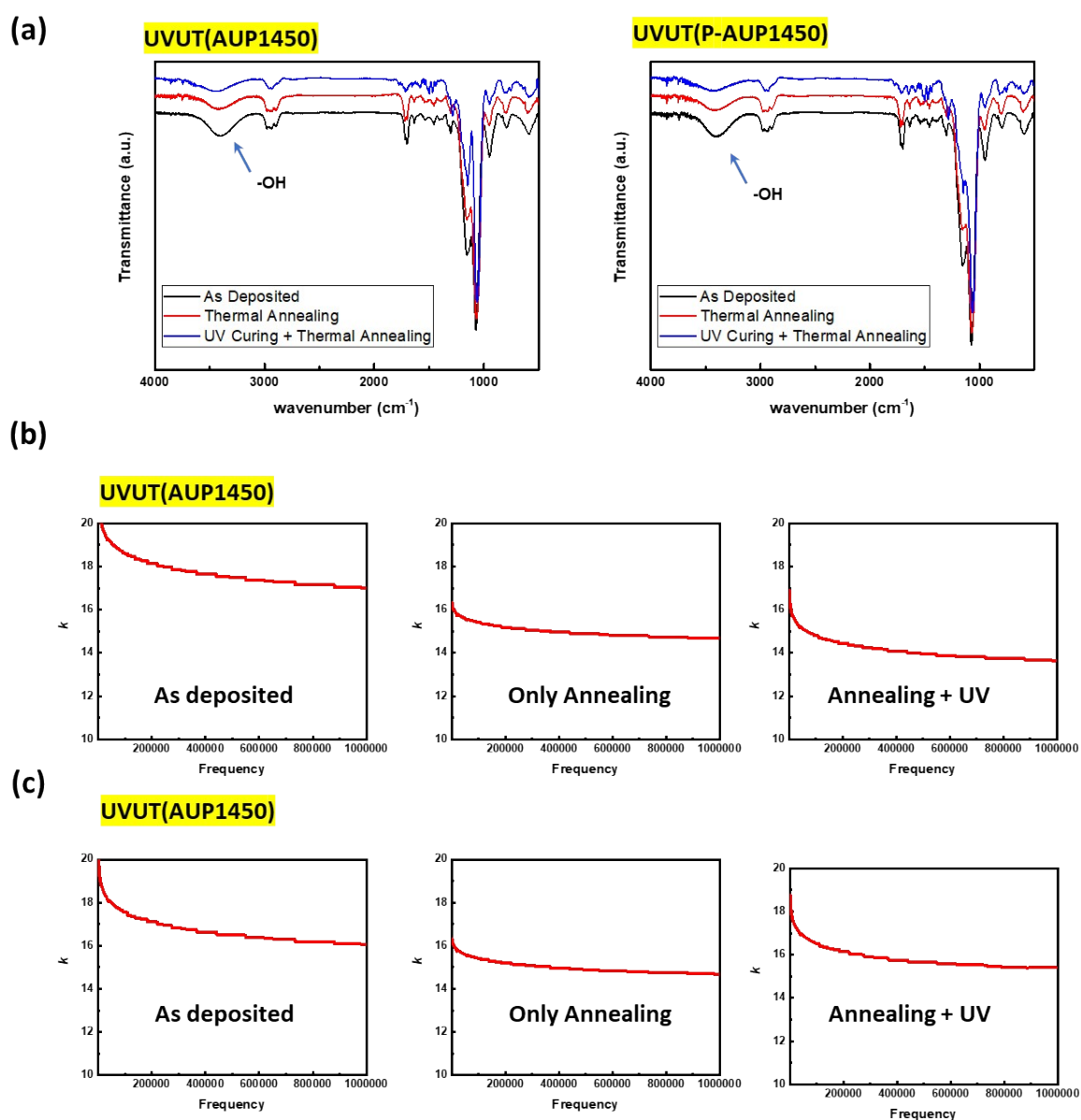
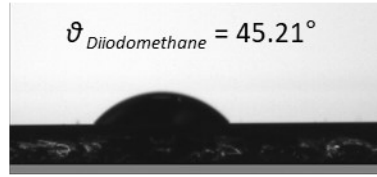
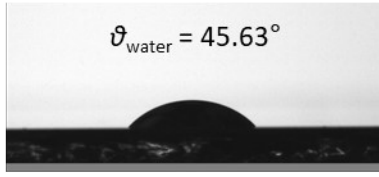


Fig. S3. a) FTIR spectra of UVUT (AUP1450) and UVUT (P-AUP1450) b) dielectric constant value of each condition at UVUT (AUP1450) c) dielectric constant value of each condition at UVUT (P-AUP1450)

$$\text{UVUT(AUP1450)} = 53.78 \text{ mJ m}^{-2}$$



$$\text{UVUT(P-AUP1450)} = 51.42 \text{ mJ m}^{-2}$$

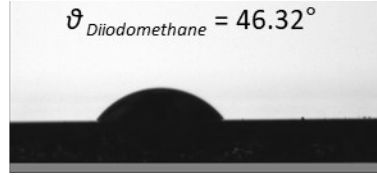
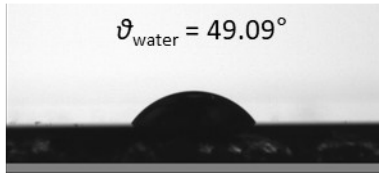


Fig. S4 Surface energy values and contact angle values with deionized water and diiodomethane.

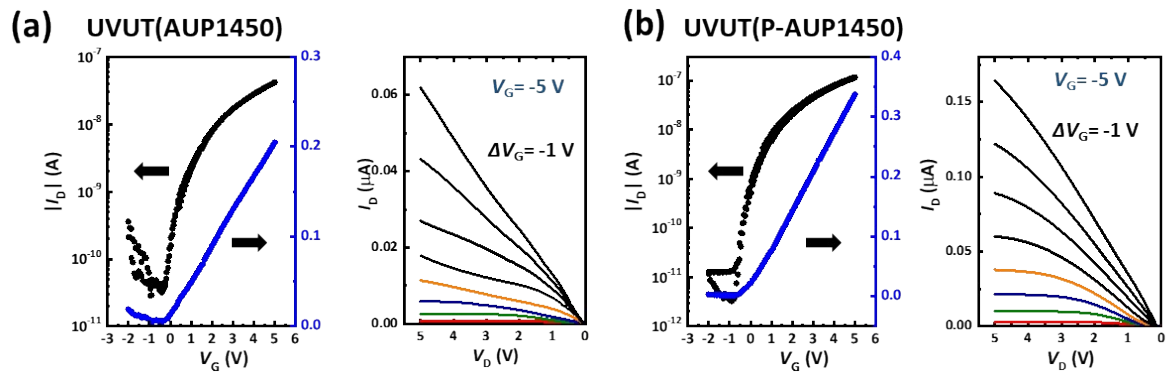


Fig. S5 Transfer and output current-voltage characteristics of n-type devices with (a) UVUT(AUP1450) gate dielectrics and (b) UVUT(P-AUP1450) gate dielectrics.

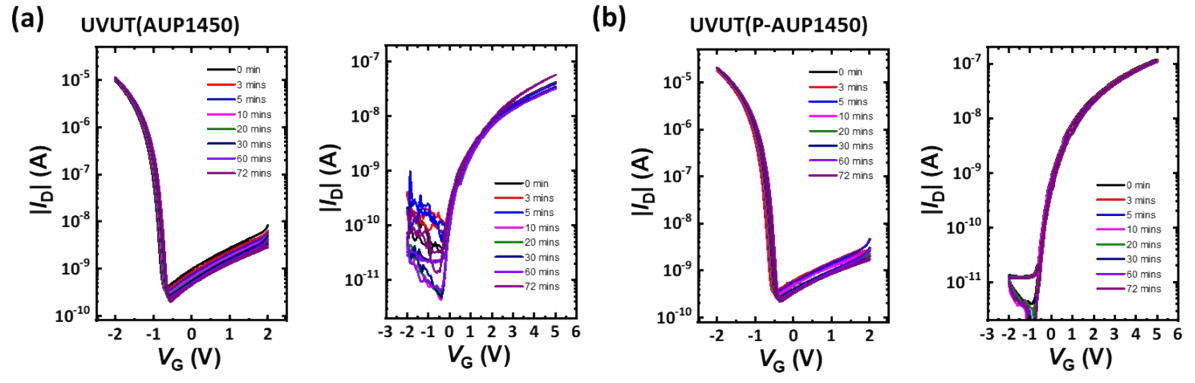


Fig. S6. Bias-stress transfer curve stability of p- and n-type device with (a) UVUT(AUP1450) gate dielectrics and (b) UVUT(P-AUP1450) gate dielectrics.