

Electronic Supplementary Information

Self-forming Electrode Modification in Organic Field-Effect Transistors

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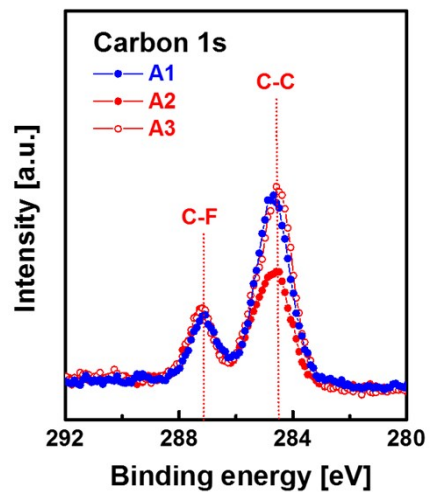


Figure S1. High-resolution XPS spectra on the surface of the sample A1, A2, and A3.

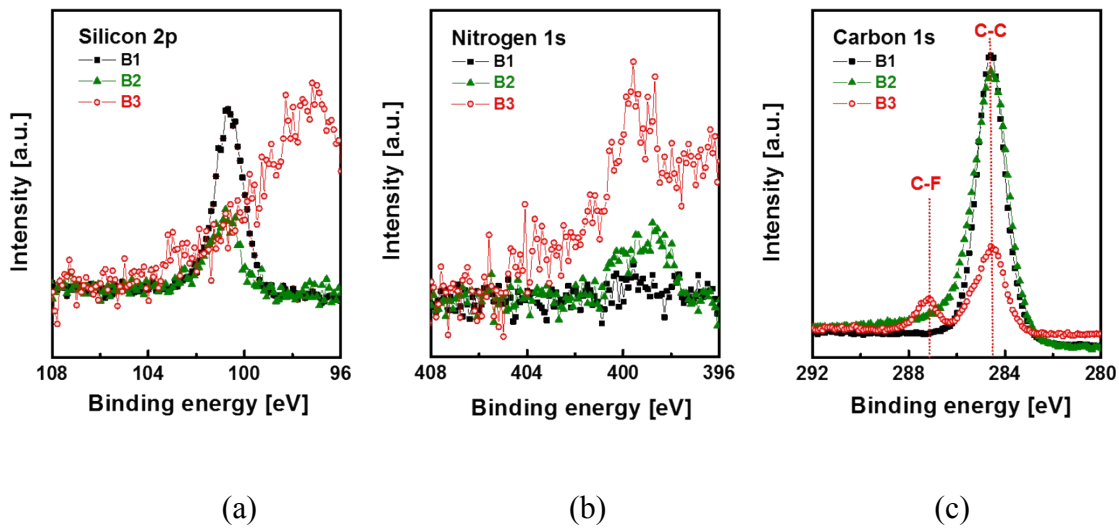


Figure S2. High-resolution XPS spectra of (a) silicon 2p, (b) nitrogen 1s, and (c) carbon 1s on the surface of the three locations, B1, B2, and B3.

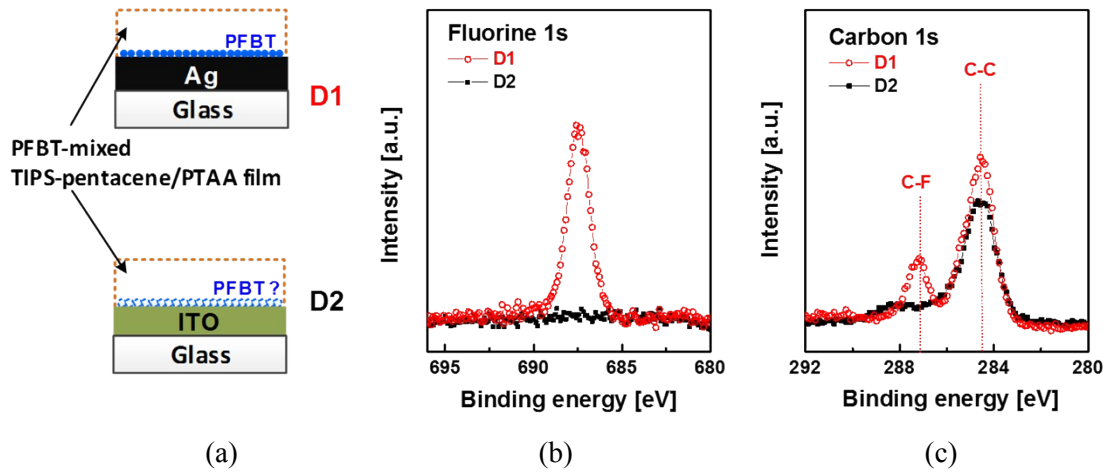


Figure S3. (a) Cross-sectional view of sample D1 and D2: PFBT-mixed TIPS-pentacene/PTAA film was deposited and then removed on evaporated silver (D1) and ITO-coated glass slide (D2) substrates. The high-resolution XPS spectra of (b) fluorine 1s and (c) carbon 1s on the surface of D1 and D2.

Table I

Process condition	Type C2	Type C3
Field-effect mobility [cm^2/Vs]	0.74 ± 0.06	0.70 ± 0.23
Threshold voltage [V]	-2.0 ± 0.20	-2.3 ± 0.39

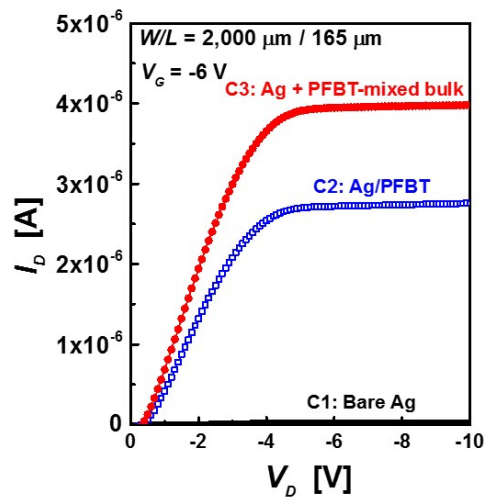


Figure S4. Comparison of I - V output characteristics of top-gate TIPS-pentacene/PTAA OFETs at $V_G = -6$ V.

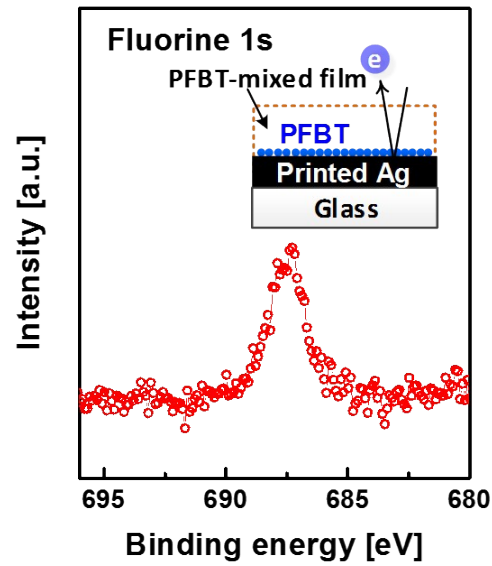


Figure S5. The high-resolution XPS spectrum of fluorine 1s on the surface of a printed silver electrode after depositing and removing a PFBT-mixed TIPS-pentacene/PTAA film.

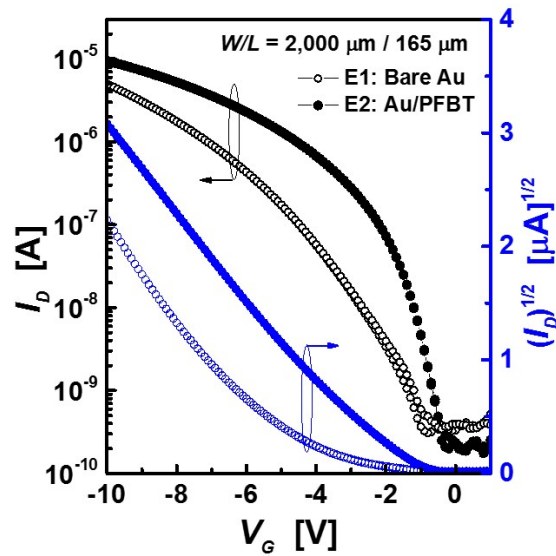


Figure S6. Comparison of transfer characteristics of the top-gate OFETs having PFBT-treated gold electrodes (Au/PFBT), type E2, and bare gold electrodes, type E1.