Electronic Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting information

High Performance Foldable Polymer Thin Film Transistors With a Side Gate Architecture

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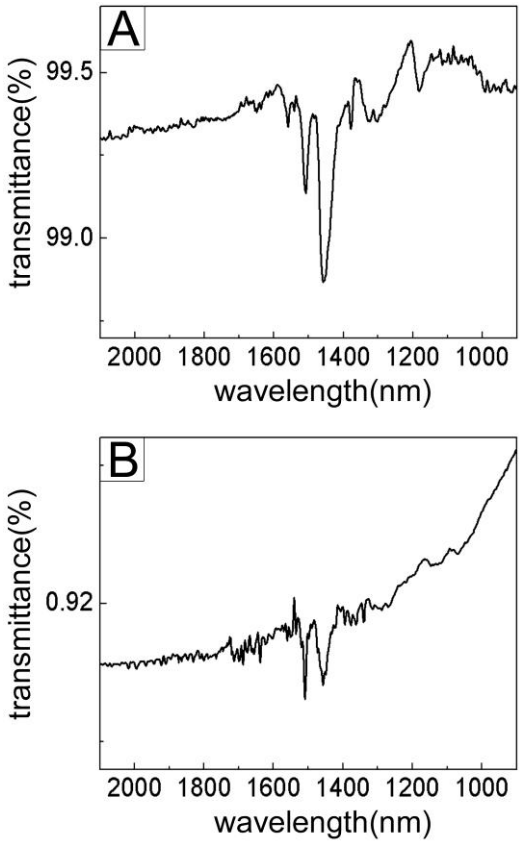

Fig. S1 FT-IR spectra of (A) Pure P3HT thin film and (B) P3HT thin film covered with ionic liquid ([EMIM][TFSI]) for 1hour.

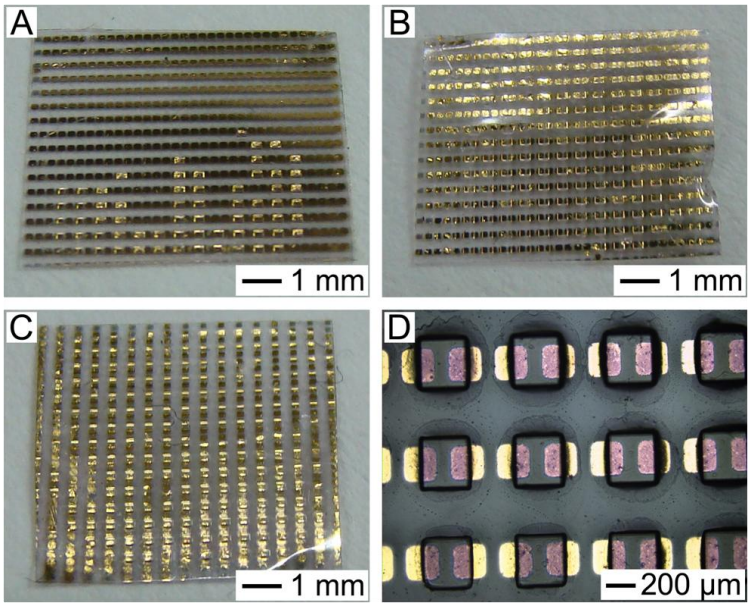

Fig. S2 Ionic liquid pattern on P3HT film with different soaking time before UV irradiation (A) 5 sec, (B) 30 sec, and (C) 60 sec. (D) Optical micro scope image of arrayed OTFTs

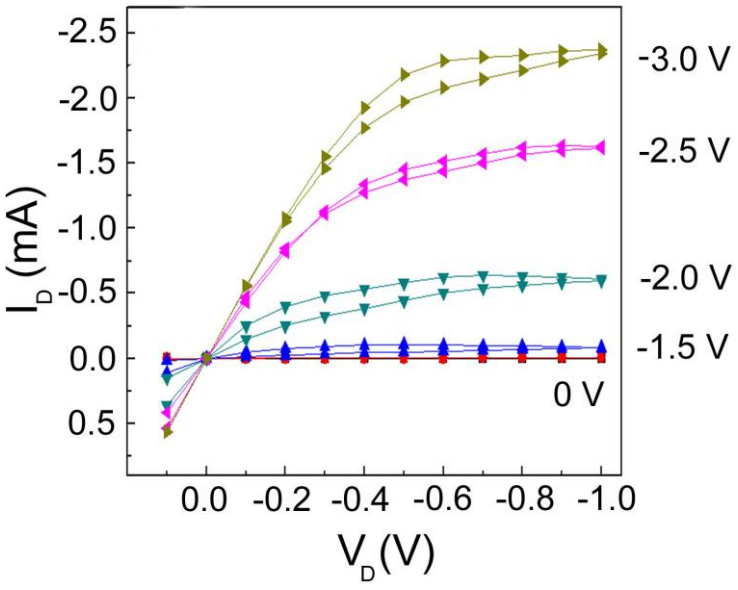

Fig. S3 (A) Output characteristics of the square patterned OTFT (I_D-V_D). (B) Corresponding transfer characteristics (I_D vs. V_G).

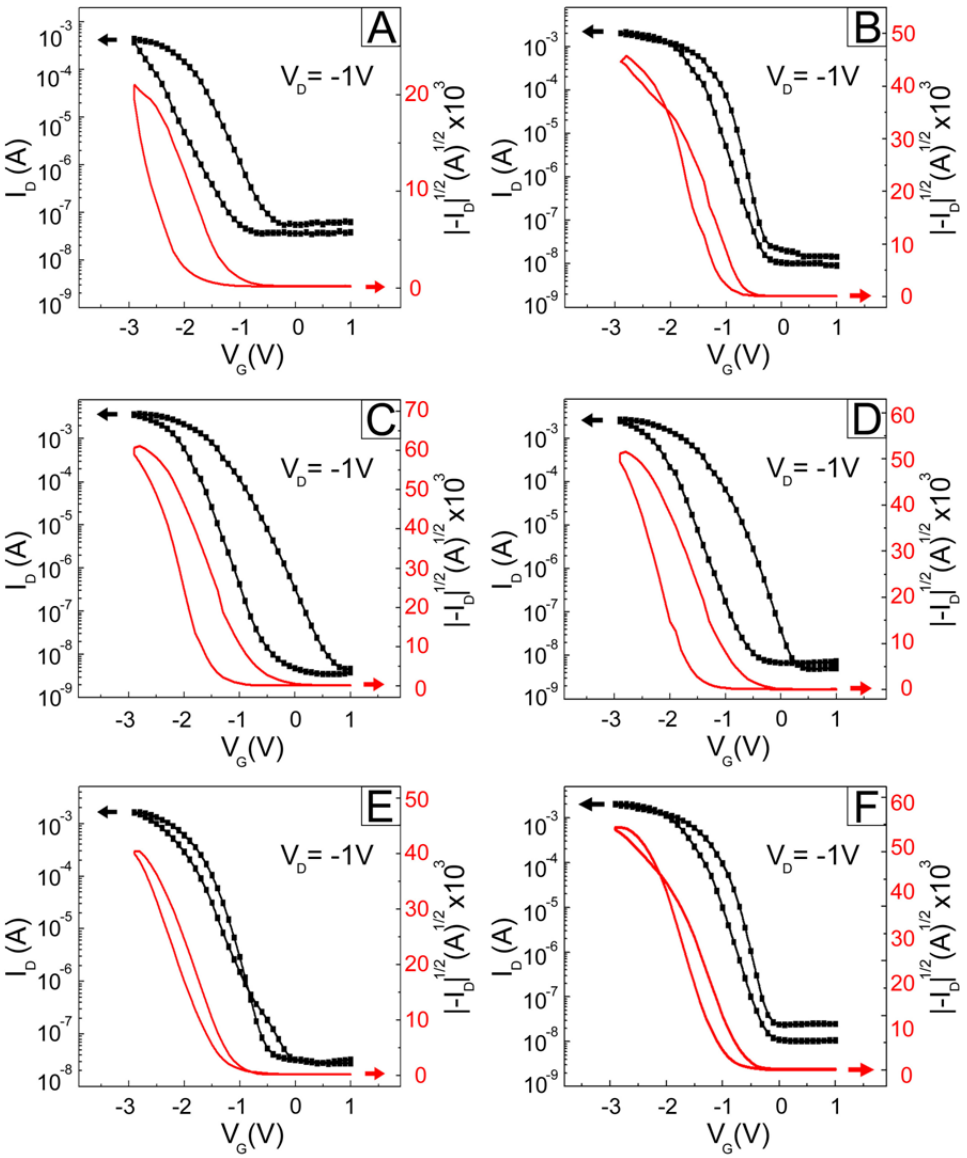

Fig. S4 Transfer characteristics (I_D vs. V_G) of transistors with different PEG-DA diffusion time (A) 5 sec, (B) 10 sec, (C) 20 sec, (D) 30 sec, (E) 40 sec, and (F) 50 sec.

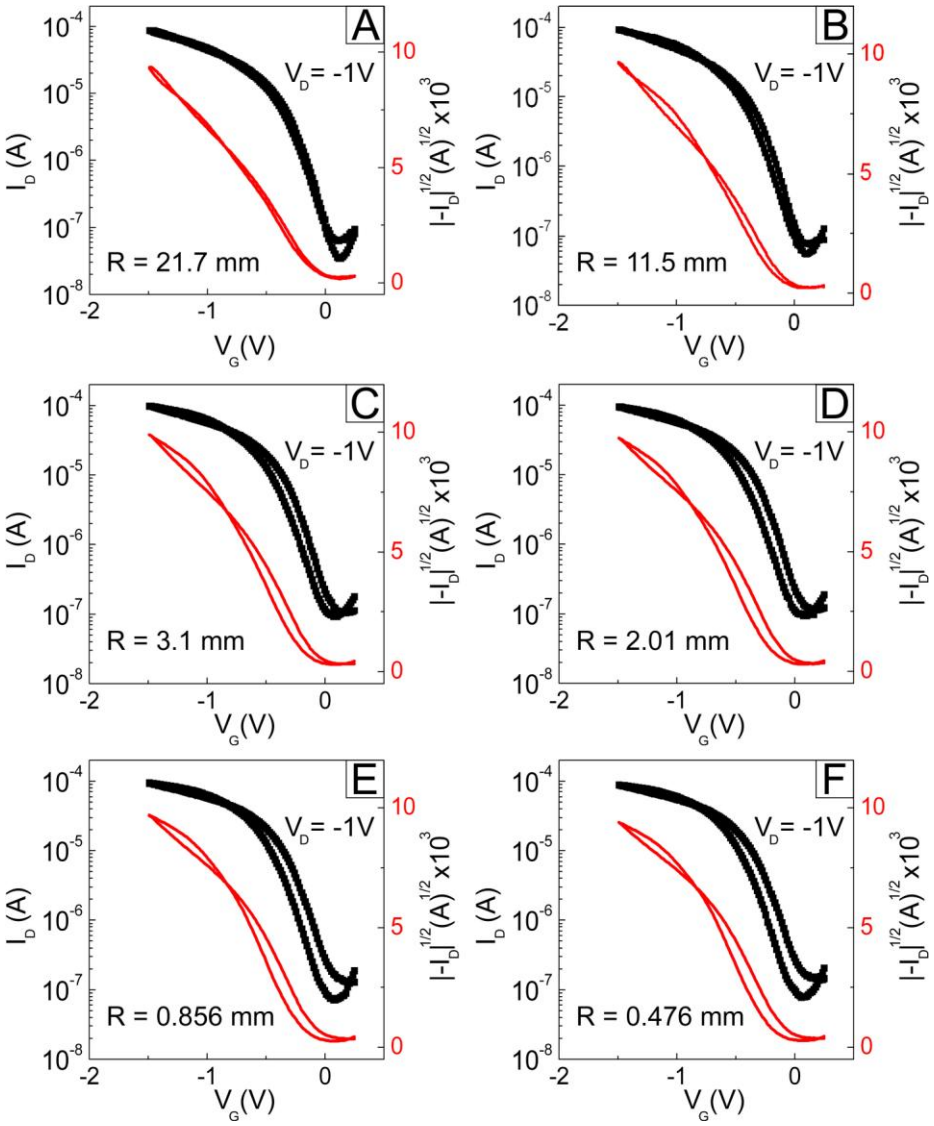

Fig. S5 Transfer characteristics (I_D vs. V_G) of the transistors with different bending radius (A) 21.7 mm, (B) 11.5 mm, (C) 3.1 mm, (D) 2.01 mm, (E) 0.856 mm, and (F) 0.476 mm.

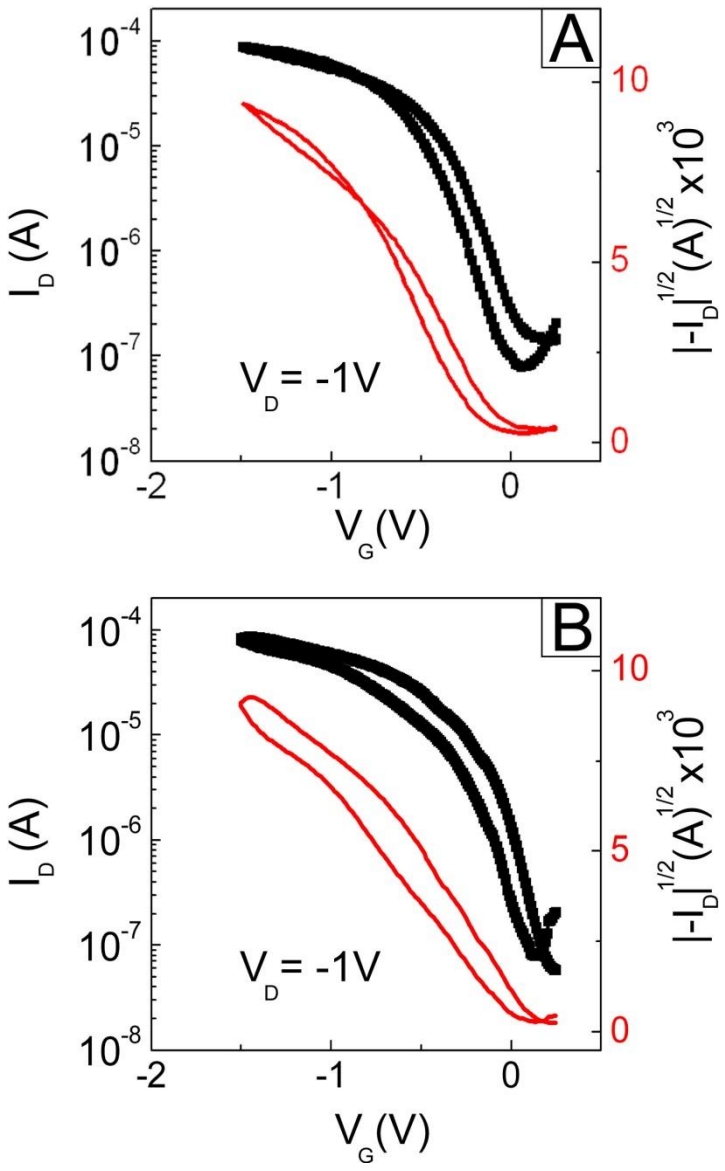

Fig. S6 Transfer characteristics of 1st folding (A) and 20th folding (B).