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## **Electronic Supplementary Information (ESI)**

## **Enhance Efficiency with Fluorinated Interlayer in Small Molecule Organic Solar Cell**

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**Fig. S1** AFM images of the (a) pristine and (b) PFAS (0.5%) modified PEDOT:PSS layers. Images of contact angle measurements of the (c) pristine and (d) PFAS (0.5%) modified PEDOT:PSS surfaces.

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Fig. S2 AFM images of pentacene films deposited on (a) pristine PEDOT:PSS and (b)

PFAS-treated PEDOT:PSS, at various thickness of pentacene films.





**Fig. S3** Effect of PFAS concentration in chlorobenzene solution on the device performance of pentacene-based small-molecule organic solar cells: UV-VIS absorption spectra.





Fig. S4 AFM images of pentacene films deposited on (a) pristine PEDOT:PSS and (b)

PFAS-treated PEDOT:PSS, after thermal annealing at various temperatures.