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Supporting Information

Boosting Charge Injection of Polymer Electrets for Light-stimulated Artificial Synaptic Transistor

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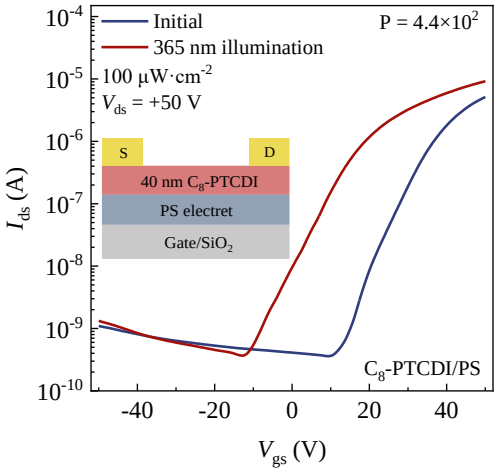

Fig. S1 The photoconductivity test of C_8-BTBT/C_8-PTCDI/PS organic field-effect transistors.

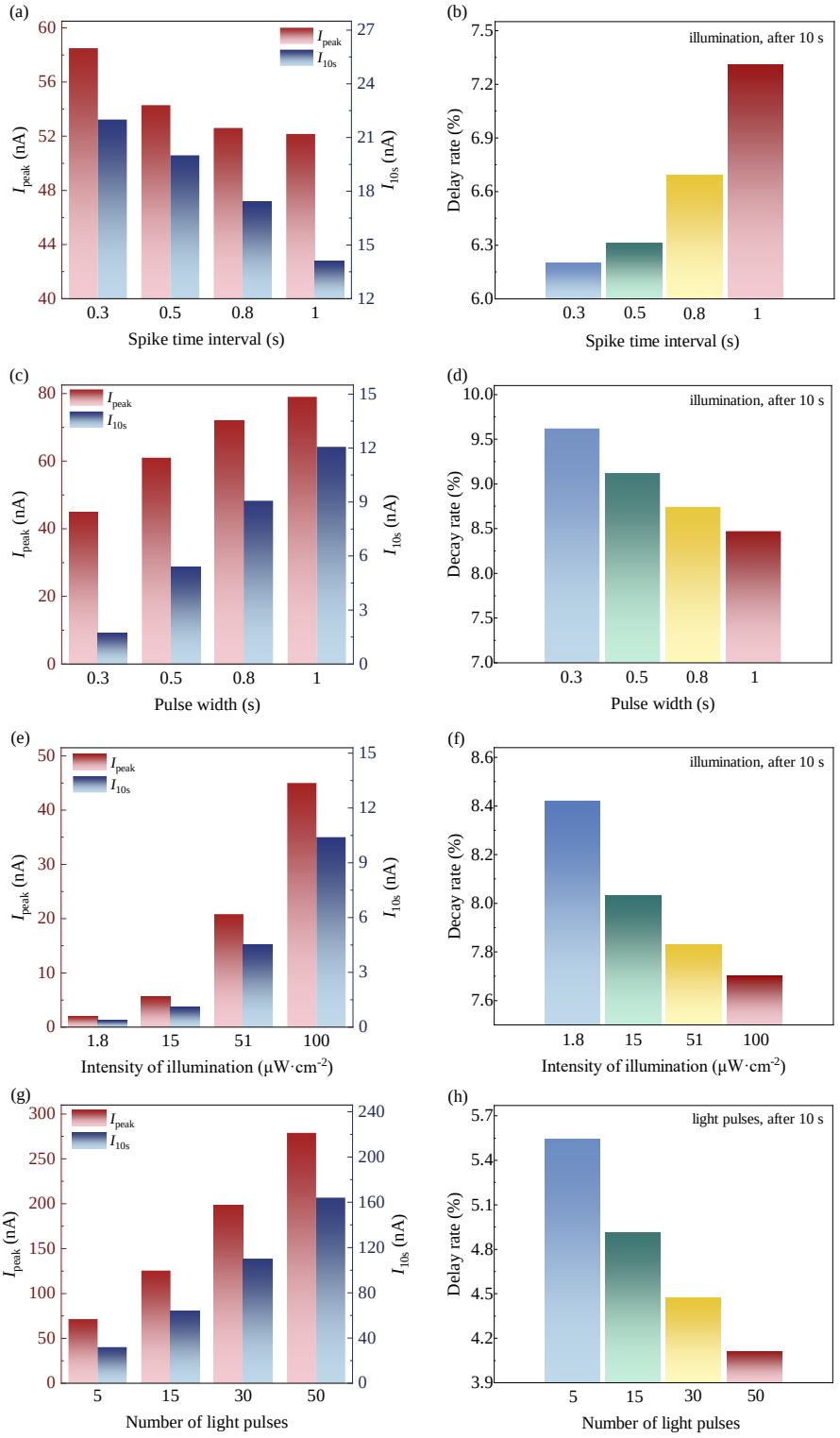

Fig. S2 The four factors that affect the peak excitatory postsynaptic current values and the values after removing the light source 10 seconds. (a-b) Excitatory postsynaptic current, and decay rate versus the change in time under different spike time interval. Note that decay rate is defined as $[(I_{peak}\text{-}I_{10s})/(I_{peak}\times10)]\times100\%$. (c-d) Excitatory postsynaptic current increases with increasing pulse width, decay rate decreases with increasing pulse width. (e-f) Excitatory postsynaptic current increases with increasing light intensity, decay rate decreases with increasing light intensity. (g-h) Excitatory postsynaptic current increases with increasing light pulses, decay rate decreases with increasing light pulses.