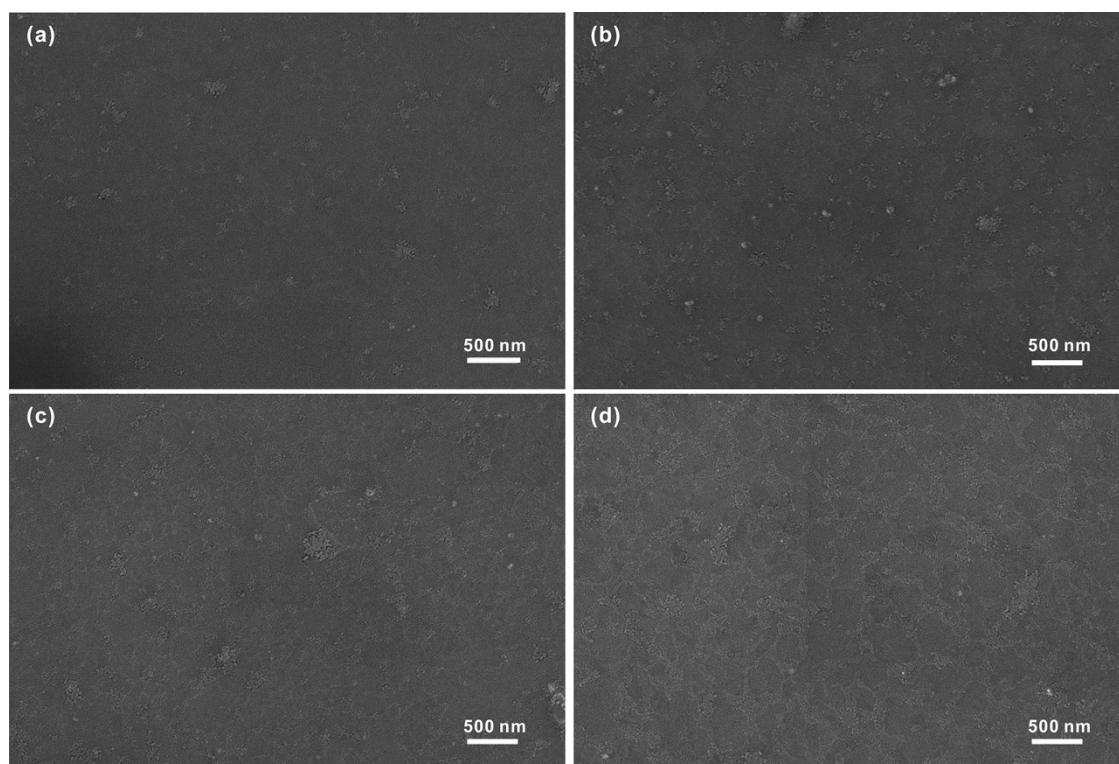


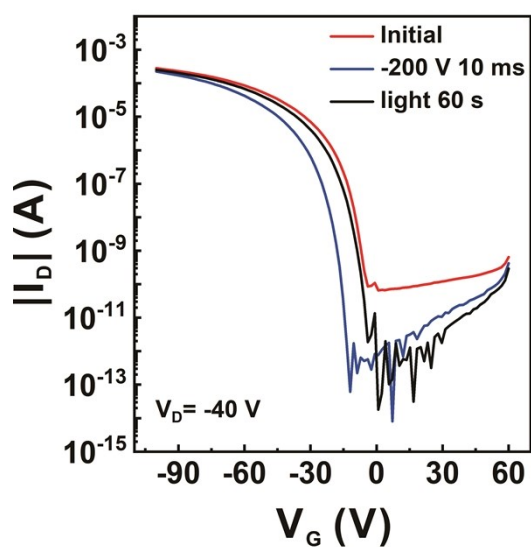
## Supporting information

### Multilevel Storage and Photoinduced-Reset Memory by an Inorganic Perovskite Quantum-Dot/Polystyrene Floating-Gate Organic Transistor

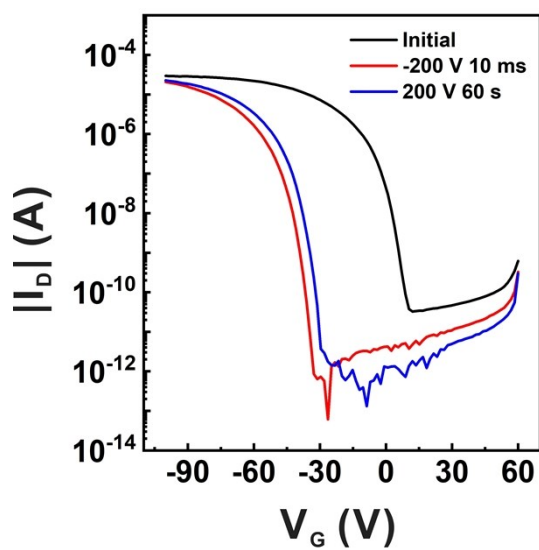
Risheng Jin,<sup>1</sup> Jin Wang,<sup>2</sup> Keli Shi,<sup>1</sup> Beibei Qiu,<sup>1</sup> Lanchao Ma,<sup>3</sup> Shihua Huang<sup>1</sup> and Zhengquan Li<sup>2</sup>



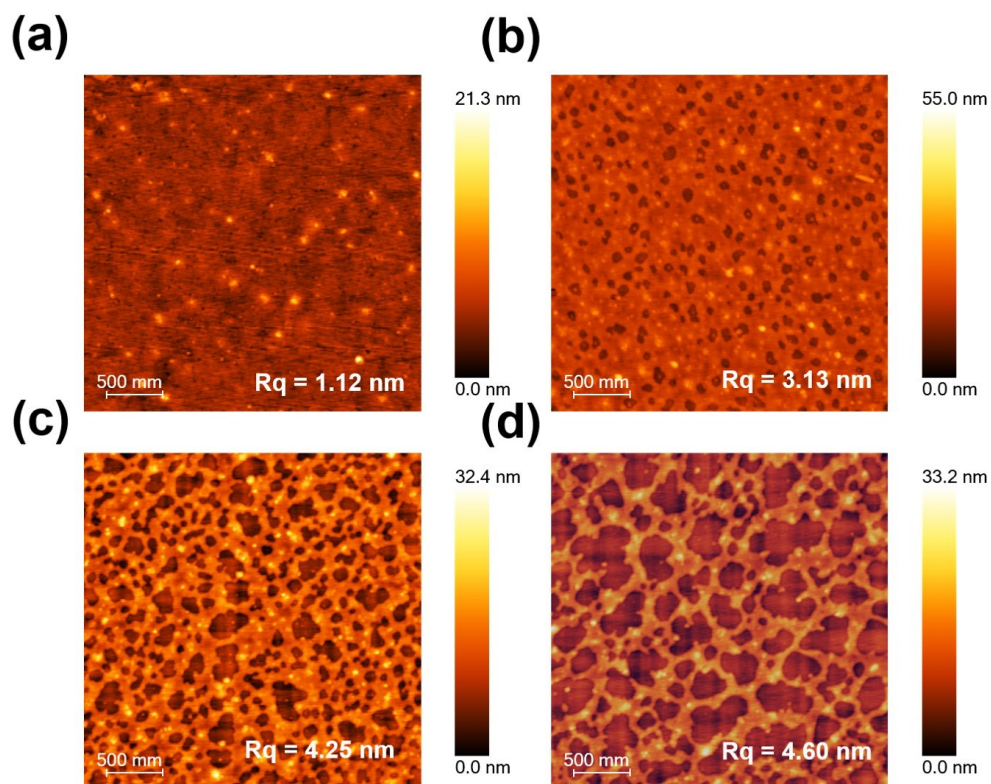
**Figure S1** SEM images of CPB QDs/PS composite films. (a) CPB QDs/PS = 1:1, (b) CPB QDs/PS = 3:1, (c) CPB QDs/PS = 4:1 and (d) CPB QDs/PS = 6:1.



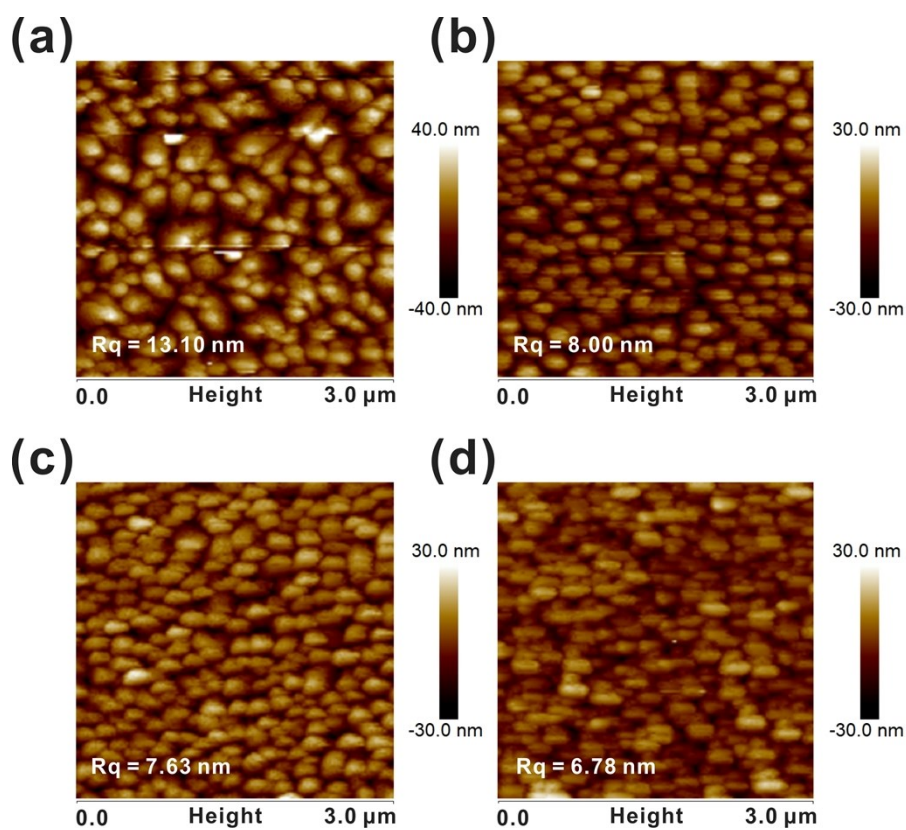
**Figure S2** Transfer characteristics ( $V_D = -40$  V) of the OFET device based on pentacene with only PS film.



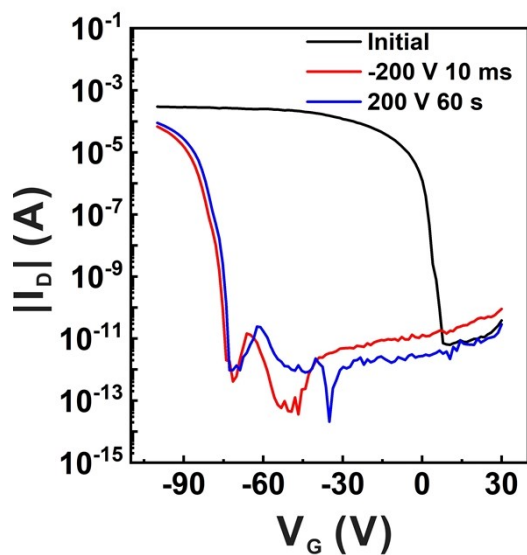
**Figure S3** The transfer curves of the pentacene based FGOFETMs in electrical programming and electrical erasing operation mode at  $V_D = -40$  V.



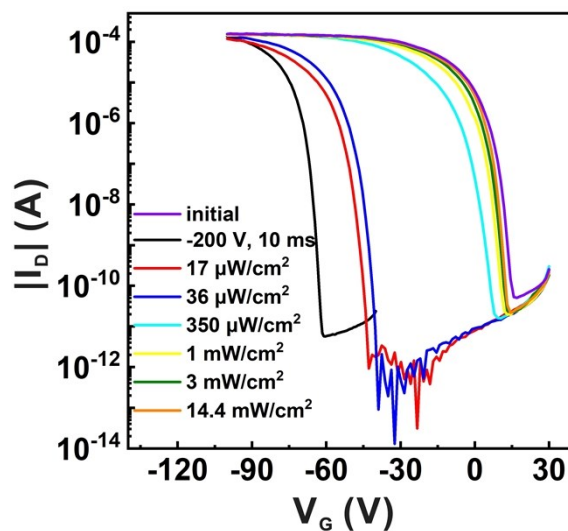
**Figure S4** AFM morphology images of CPB QDs/PS composite films. (a) CPB QDs/PS = 1:1, (b) CPB QDs/PS = 3:1, (c) CPB QDs/PS = 4:1 and (d) CPB QDs/PS = 6:1.



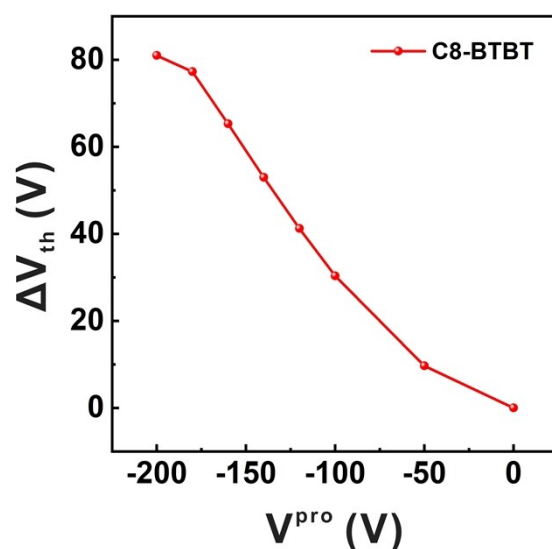
**Figure S5** AFM morphology images of pentacene films deposited on CPB QDs/PS composites floating-gate layer. a) CPB QDs/PS = 1:1, b) CPB QDs/PS = 3:1, c) CPB QDs/PS = 4:1 and d) CPB QDs/PS = 6:1.



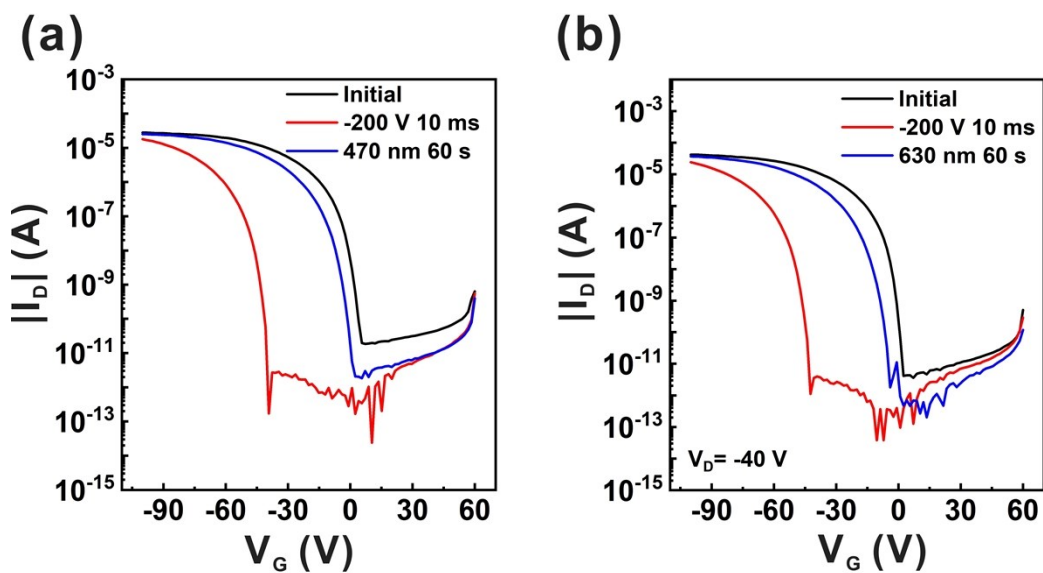
**Figure S6** The transfer curves of the C8-BTBT based FGOETMs in electrical programming and electrical erasing operation mode at  $V_D = -40$  V.



**Figure S7** The effect of light intensity on the photo-erasure process.



**Figure S8**  $\Delta V_{\text{th}}$  related to the voltage program for 10ms during the measure process.



**Figure S9** The transfer curves ( $V_D = -40$  V) of the pentacene based FGFETs under electrical programming and light erasing operation mode with different wavelength (a) 470 nm and (b) 630 nm.