

## Supporting information

### **Photoinduced Ultrafast Electron Transfer and Charge Transport in the PbI<sub>2</sub>/C<sub>60</sub> Heterojunction**

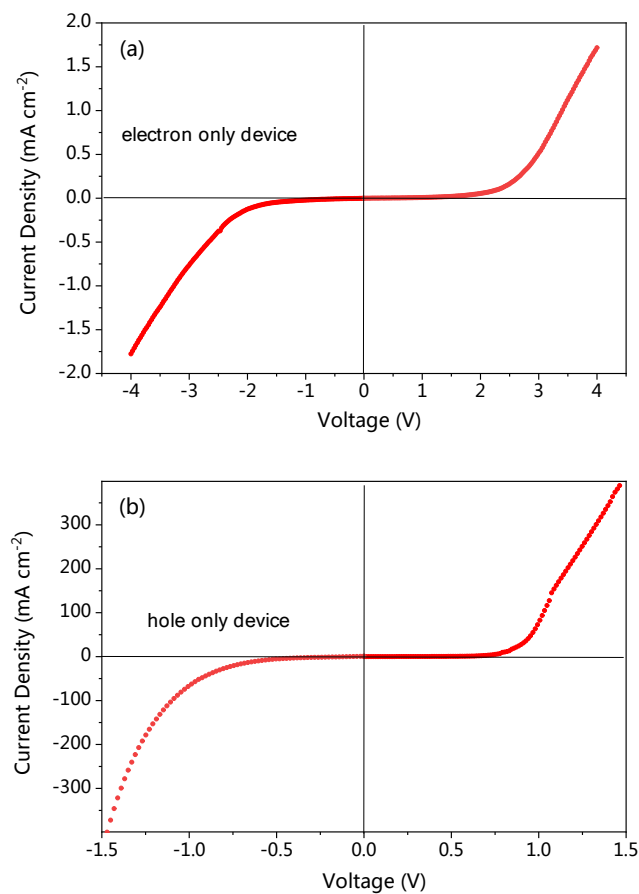
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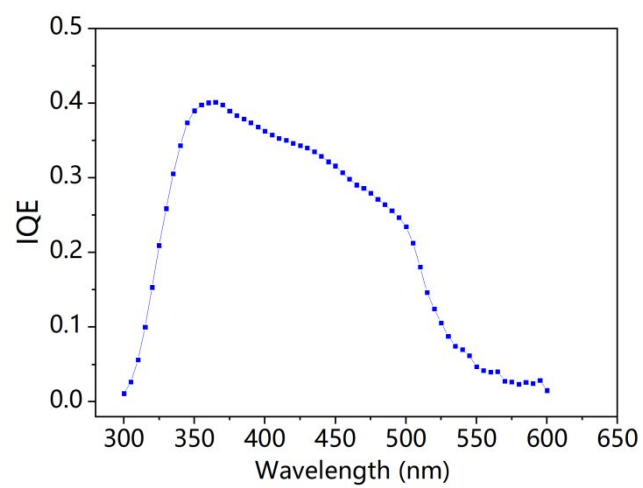
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**Figure S1.**  $J$ - $V$  characteristics of **(a)** the electron- and **(b)** hole-only devices under forward and reverse bias. The device architectures were Glass/Al/PbI<sub>2</sub> (100 nm)/Alq<sub>3</sub> : LiF (20 : 1 in weight, 10 nm)/LiF (1.0 nm)/Al, and Glass/Au/MoO<sub>3</sub>(8 nm)/PbI<sub>2</sub> (100 nm)/ MoO<sub>3</sub>(8 nm) /Au. The glass substrate side was defined as positive during measurements.



**Figure S2.** IQE spectrum of the solar cell with a  $\text{PbI}_2/\text{C}_{60}$  heterojunction.