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A-D-A 型小分子电子给体光伏材料的端基修饰及其光伏性能

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Development of Benzodithiophene-Based A-D-A Small Molecules with Different Acceptor End Groups for Efficient Organic Solar Cells

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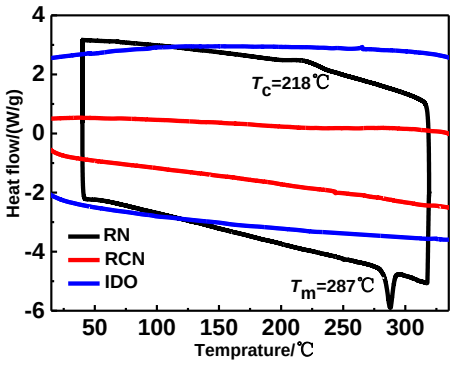

图 S1　三个小分子给体材料的差示扫描量热法曲线图

Fig. S1　Differential Scanning Calorimetry (DSC) diagram of the three SM donors in nitrogen at ramp rate of 10 ℃·min^{-1}.

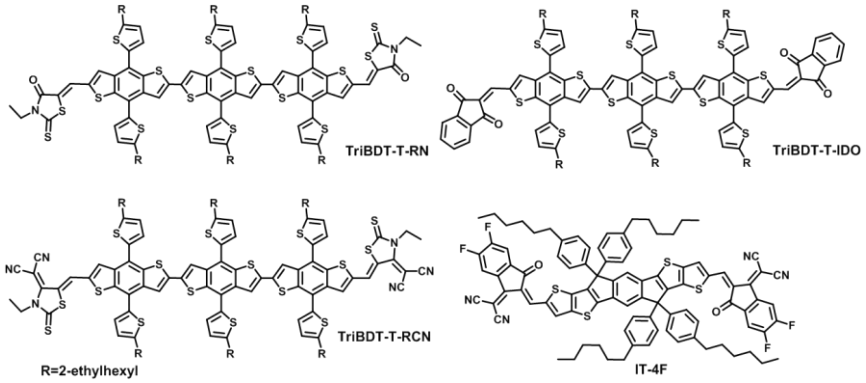

图 S2　三个小分子给体材料以及受体材料 IT-4F 的分子结构

Fig. S2　Molecular structure of the three SM donors and the acceptor IT-4F.

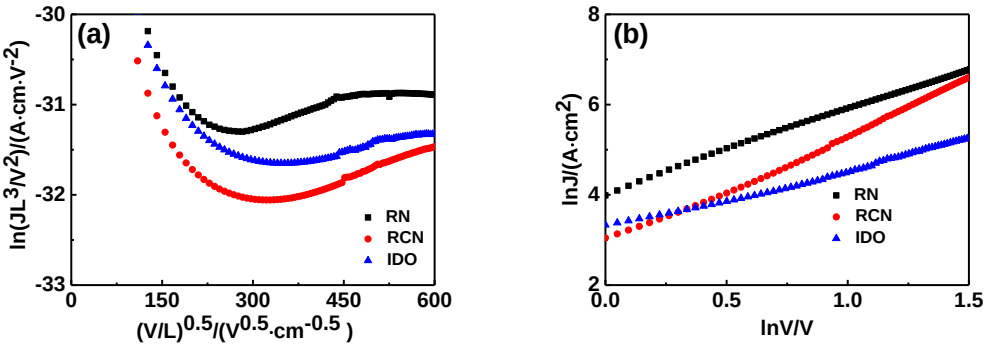

图 S3　三种 SM:IT-4F 共混薄膜在最佳器件制备条件下的(a)空穴迁移率(b)电子迁移率

Fig. S3　The dark *J*–*V* Plots obtained from the (a) hole-only and (b) electron-only devices based on SM:IT4F under the optimal device fabrication conditions.

表 S1　共混薄膜的空穴迁移率与电子迁移率

Table S1　Hole and electron mobilities of the SM:IT-4F blends.

Materials	μ_h/cm^2·V^{-1} s^{-1}	μ_e/cm^2·V^{-1}·s^{-1}
RN:IT-4F	4.28×10^{-4}	3.04×10^{-4}
RCN:IT-4F	1.11×10^{-4}	1.19×10^{-4}
IDO:IT-4F	1.72×10^{-4}	1.58×10^{-4}