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Enhanced performance of inverted non-fullerene organic solar cells through modifying zinc oxide surface with self-assembled monolayers

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The ZnO was modified by three self-assembled small molecules and used as electron transport layer to fabricate inverted non-fullerene organic solar cells (OSCs). The devices based on the modified ZnO showed more efficient charge dissociation and weaker trap-assisted bimolecular recombination. As a result, the power conversion efficiency of OSCs based on PBDB-T:ITIC was improved from 10.03% to 10.90%.



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