Supporting Information

Optimization of active layer for efficient binary organic solar cells

Yunjie Li, ^{a,b,‡} Beining Wang, ^{b,‡} Yaqian Yuan, ^c Lijun Chen, ^b Jianfei Fu, ^b Chong Geng, ^c

Junmin Wan, ^{a,*} and Hai-Qiao Wang ^{b,*}

^a School of Materials Science and Engineering, Zhejiang Sci-Tech University, Hangzhou, China

^b Zhejiang Engineering Research Center for Fabrication and Application of Advanced Photovoltaic Materials, School of Materials Science and Engineering, NingboTech

University, Ningbo 315100, China

^c School of Electronics and Information Engineering, Hebei University of Technology, Tianjin 300401, China.

*Corresponding author: wwjm2001@126.com; hqwang@nbt.edu.cn (H.-Q. Wang)

⁺ These authors have contributed equally to this paper.

Keywords: organic photovoltaic, active layer, morphology, solvent additive



Figure S1. The thickness of the active layers applied in the devices.



Figure S2. Power density output of the device with champion performance.



Figure S3. Voc steady-state output of the champion device.



Figure S4. Steady-state current output of the champion device.



500 nm

Figure S5. Elemental mapping of cross-section of the active layer with DIO.



500 nm

Figure S6. Elemental mapping of cross-section of the active layer without DIO.



Figure S7. PL of the active layer with and without DIO. Excitation: 460 nm.



Figure S8. Cross-section SEM figure of the fabricated device. Confirming the device architecture of ITO/PEDOT:PSS/PM6:L8-BO/PDINN/Ag.