Electronic Supplementary Information

The correlations of the electronic structure and film growth of 2,7-
dioctyl[1]benzothieno[3,2-b]benzothiophene (C8-BTBT) on SiO₂

Lu Lyu,abc Dongmei Niu,*ab Haipeng Xie,ab Yuan Zhao,ab Ningtong Cao,ab

Hong Zhang,ab Yuhe Zhang,ab Peng Liu,ab and Yongli Gao,*abcd

aInstitute of Super-microstructure and Ultrafast Process in Advanced Materials, School of

Physics and Electronics, Central South University, No. 605 Lushan South Road, Changsha

Hunan, 410012, P. R. China

bHunan Key Laboratory for Super-microstructure and Ultrafast Process, School of Physics

and Electronics, Central South University, Changsha, Hunan, 410012, P. R. China

cDepartment of Physics and Research Center OPTIMAS, University of Kaiserslautern,

Erwin-Schrödinger-Straße 46, 67663 Kaiserslautern, Germany

dDepartment of Physics and Astronomy, University of Rochester, Rochester, NY14627, USA

* E-mail: mayee@csu.edu.cn

* E-mail: ygao@csu.edu.cn
Fig. S1  (a) UPS cut-off region of 8.0 nm C8-BTBT on SiO$_2$ at different out current ($I_{\text{out}}$) of UV lamp and (b) XPS C\textit{1s} core-level at different anode power dissipation ($P_A$) of X-ray.
Fig. S2  AFM morphology images (10 μm × 10 μm) of 0.5 nm-thick C8-BTBT films on SiO₂ as a function of substrate temperature of (a) 300, (b) 333, (c) 353 K. (d)-(f) are the corresponding magnified image (5.0 μm × 5.0 μm) from the crystallites region indicated by black dashed square in (a)-(c). The histograms of (g), (h) and (i) show the radius distribution of crystallites in (d), (e) and (f), respectively.