Supporting Information

Solution processable new donor materials based on thiophene and triphenylamine for bulk heterojunction solar cells

Jongchul Kwon, a Woohul Lee, a Ji-young Kim, c Seunguk Noh, b Changhee Lee b and Jong-In Hong a

a Department of Chemistry, College of Natural Sciences, Seoul National University, Seoul 151-747, Korea.
b School of Electrical Engineering and Computer Science, Interuniversity Semiconductor Research Center, Seoul National University, Seoul 151-742, Korea.
c Interdisciplinary Graduate Program in Nanoscience and Nanotechnology, Seoul National University, Seoul 151-742, Korea.

List of Contents

UV and PL Spectra S1

Single Component Device Data S2

TGA and DSC Data S3,4

Bilayer Device Data S5
UV and PL spectra

Fig. S1 UV and PL spectra of 1 and 2 in quartz solid film.

Fig. S2 UV spectra of pure 1 or 2 in solid film and 1 or 2/PCBM=1:1 blend film.
Single component based device

Fig. S3 I-V curves of single component devices with pure 1 (top) and 2 (bottom) under simulated AM 1.5 solar irradiation at 100 mWcm\(^{-2}\).
TGA data of 1 and 2

**Fig. S4** TGA data of 1.

**Fig. S5** TGA data of 2.
DSC data of 1 and 2

Fig. S6 DSC data of 1.

Fig. S7 DSC data of 2.
**Fig. S8** I-V curves of bilayer devices with 1 and 2/C₆₀ under simulated AM 1.5 solar irradiation at 100 mWcm⁻².