Electronic Supplementary Information for

"Facile conversion of plant oil (anethole) to a high-performance

material"

Yangqing Tao, Fengkai He, Kaikai Jin, Jiajia Wang, Yuanqiang Wang, Junfeng Zhou, Jing Sun* and Qiang Fang*

Key Laboratory of Synthetic and Self-Assembly Chemistry for Organic Functional Molecules, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 345 Lingling Road, Shanghai 200032, PR China.

1. Synthesis of M1



A mixture of M-BCB (2.00 g, 8.46 mmol), Pd/C (10 %) (1.80 g, 1.69 mmol), HOAc (1.02 g, 16.93 mmol), THF (10 ml) were added to a 25 ml flask equipped with a magnetic stirrer, then the mixture was kept at room temperature for 24 h under H₂ atmosphere. M1 was obtained as a colorless liquid with a yield of 96 % by column chromatograph using petroleum ether as the eluent. ¹H NMR (400 MHz, CDCl₃): δ = 7.13 – 7.07 (m, 2H), 6.98 (d, *J* = 7.9 Hz, 1H), 6.92 – 6.86 (m, 2H), 6.87 – 6.81 (m, 1H), 6.74 (t, *J* = 5.6 Hz, 1H), 3.13 (d, *J* = 3.8 Hz, 4H), 2.57 – 2.52 (m, 2H), 1.67 – 1.57 (m, 2H), 0.94 (t, *J* = 7.4 Hz, 3H). ¹³C NMR (101 MHz, CDCl₃): δ = 156.9, 156.1, 146.8, 140.3, 137.2, 129.6 (2C), 123.9, 118.4 (3C), 114.3, 37.4, 29.2, 29.0, 24.9, 13.9. HRMS-EI(m/z): Calcd. C₁₇H₁₈O [M]⁺ 238.1358; Found 238.1364. Anal. Calcd. C₁₇H₁₈O: C, 85.67; H, 7.61; Found: C, 85.58; H, 7.53.

2. Complementary data







Fig. S2 13 C NMR spectrum of B (400 MHz, CDCl₃)







Fig. S4 ^{13}C NMR spectrum of M-BCB (400 MHz, CDCl₃)







Fig. S6 ¹³C NMR spectrum of M1 (400 MHz, CDCl₃)



4.5 4.0 3.5 3.0 f1 (ppm) 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 2.5 2.0 1.5 1.0 0.5 0.0 -0.5

Fig. S7 ¹H NMR spectrum of PM1 (400 MHz, CDCl₃)



Fig. S8 DMA curves of PM-BCB



Fig. S9 DSC curves of M-BCB at a heating rate of 10 °C/min⁻¹



Fig. S10 Comparison of FT-IR spectra of M1, PM1, M-BCB and PM-BCB



Fig. S11 Water contact angle of PM-BCB sample