Electronic Supplementary Information for

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

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## 1. Synthesis of M1



A mixture of $\mathrm{M}-\mathrm{BCB}(2.00 \mathrm{~g}, 8.46 \mathrm{mmol}), \mathrm{Pd} / \mathrm{C}(10 \%)(1.80 \mathrm{~g}, 1.69 \mathrm{mmol})$, HOAc ( 1.02 g , $16.93 \mathrm{mmol})$, 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 $\mathrm{H}_{2}$ atmosphere. M1 was obtained as a colorless liquid with a yield of $96 \%$ by column chromatograph using petroleum ether as the eluent. ${ }^{1} \mathrm{H}$ NMR $\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right): \delta=7.13-7.07(\mathrm{~m}, 2 \mathrm{H}), 6.98(\mathrm{~d}, J=7.9 \mathrm{~Hz}, 1 \mathrm{H}), 6.92-$ $6.86(\mathrm{~m}, 2 \mathrm{H}), 6.87-6.81(\mathrm{~m}, 1 \mathrm{H}), 6.74(\mathrm{t}, J=5.6 \mathrm{~Hz}, 1 \mathrm{H}), 3.13(\mathrm{~d}, J=3.8 \mathrm{~Hz}, 4 \mathrm{H}), 2.57-$ $2.52(\mathrm{~m}, 2 \mathrm{H}), 1.67-1.57(\mathrm{~m}, 2 \mathrm{H}), 0.94(\mathrm{t}, J=7.4 \mathrm{~Hz}, 3 \mathrm{H}) .{ }^{13} \mathrm{C}$ NMR $\left(101 \mathrm{MHz}, \mathrm{CDCl}_{3}\right): \delta=$ $156.9,156.1,146.8,140.3,137.2,129.6$ (2C), 123.9, 118.4 (3C), 114.3, 37.4, 29.2, 29.0, 24.9, 13.9. $\mathrm{HRMS}-\mathrm{EI}(\mathrm{m} / \mathrm{z})$ : Calcd. $\mathrm{C}_{17} \mathrm{H}_{18} \mathrm{O}[\mathrm{M}]^{+}$238.1358; Found 238.1364. Anal. Calcd. $\mathrm{C}_{17} \mathrm{H}_{18} \mathrm{O}$ : C, 85.67; H, 7.61; Found: C, 85.58; H, 7.53.

## 2. Complementary data



Fig. S1 ${ }^{1} \mathrm{H}$ NMR of $\mathbf{B}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$


Fig. S2 ${ }^{13} \mathrm{C}$ NMR spectrum of $\mathbf{B}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$


Fig. S3 ${ }^{1} \mathrm{H}$ NMR of $\mathbf{M}-\mathbf{B C B}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$


Fig. S4 ${ }^{13} \mathrm{C}$ NMR spectrum of $\mathbf{M}-\mathbf{B C B}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$





Fig. S5 ${ }^{1} \mathrm{H}$ NMR spectrum of $\mathbf{M 1}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$



Fig. S6 ${ }^{13} \mathrm{C}$ NMR spectrum of $\mathbf{M 1}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$


Fig. $\mathbf{S} 7{ }^{1} \mathrm{H}$ NMR spectrum of $\mathbf{P M 1}\left(400 \mathrm{MHz}, \mathrm{CDCl}_{3}\right)$


Fig. S8 DMA curves of PM-BCB


Fig. S9 DSC curves of M-BCB at a heating rate of $10^{\circ} \mathrm{C} / \mathrm{min}^{-1}$


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


Fig. S11 Water contact angle of $\mathbf{P M}-\mathbf{B C B}$ sample

