mono-2EOBCS: ^{1}H NMR ($CDCl_3$, TMS)，δ: 8.23 (s, 1H, Ar-***H***); 7.92-7.89 (m, 2H, Ar-***H***); 7.38 (m, 1H, -C***H***=CH_2); 7.37-7.35 (d, 4H, Ar-***H***); 6.94-6.92 (d, 4H，Ar-***H***); 5.74-5.70 (d, 1H, -CH=C***H***$_2$); 5.41-5.38 (d, 1H, -CH=C***H***$_2$); 5.31-5.29 (d, 4H, -COOC***H***$_2$-); 4.16-4.14 (t, 4H, ArOC***H***$_2$-); 3.88-3.85 (t, 4H, ArOCH$_2$C***H***$_2$-); 3.73-3.71 (t, 4H, ArOCH$_2$CH$_2$OC***H***$_2$-); 3.59-3.57 (t, 4H, -C***H***$_2$OCH$_3$); 3.39 (s, 6H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 59.78 (-O***C***H$_3$); 66.96 (-COO***C***H$_2$-); 67.41 (ArO***C***H$_2$-); 69.68 (ArOCH$_2$***C***H$_2$O-); 70.71-70.75 (-O***C***H$_2$CH$_2$OCH$_3$); 71.89-71.94 (-***C***H$_2$OCH$_3$); 113.89-115.47 (aromatic ***C*** ortho to -OCH$_2$CH$_2$O-); 117.78 (-CH=***C***H$_2$); 127.30-127.51 (aromatic ***C*** ortho to -CH=CH$_2$ and –C=O); 127.86-127.96 (aromatic ***C*** meta to -OCH$_2$CH$_2$O-); 129.41-129.51 (aromatic ***C*** para to -CH=CH$_2$ and aromatic ***C*** meta to -CH=CH$_2$); 130.94-131.15 (aromatic ***C***-CH$_2$-); 134.00 (aromatic ***C***-C=O); 135.61 (-***C***H=CH$_2$); 139.57 (aromatic ***C***-CH=CH$_2$); 158.99 (aromatic ***C***-OCH$_2$CH$_2$O-); 165.58-166.55 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{34}H_{40}O_{10}$, 608.7; found, 608.2.

mono-3EOBCS: ^{1}H NMR ($CDCl_3$, TMS)，δ: 8.22 (s, 1H, Ar-***H***); 7.94-7.87 (m, 2H, Ar-***H***); 7.42 (m, 1H, -C***H***=CH_2); 7.38-7.36 (d, 4H, Ar-***H***); 6.93-6.91 (d, 4H，Ar-***H***); 5.74-5.70 (d, 1H, -CH=C***H***$_2$); 5.40-5.37 (d, 1H, -CH=C***H***$_2$); 5.30-5.28 (d, 4H, -COOC***H***$_2$-); 4.16-4.14 (t, 4H, ArOC***H***$_2$-); 3.86 (t, 4H, ArOCH$_2$C***H***$_2$-); 3.74-3.64 (m, 12H, ArOCH$_2$CH$_2$OC***H***$_2$C***H***$_2$OC***H***$_2$-); 3.55 (t, 4H, -C***H***$_2$OCH$_3$-); 3.37 (s, 6H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 58.36 (-O***C***H$_3$); 66.89 (-COO***C***H$_2$-); 67.35 (ArO***C***H$_2$-); 69.56 (ArOCH$_2$***C***H$_2$O-); 70.41-70.73 (ArOCH$_2$CH$_2$O***C***H$_2$***C***H$_2$O***C***H$_2$-); 71.85 (-***C***H$_2$OCH$_3$); 113.86-115.34 (aromatic ***C*** ortho to -OCH$_2$CH$_2$O-); 117.65 (-CH=***C***H$_2$); 127.27-127.44 (aromatic ***C*** ortho to -CH=CH$_2$ and -C=O); 127.79-127.89 (aromatic ***C*** meta to -OCH$_2$CH$_2$O-); 129.29-129.48 (aromatic ***C*** para to -CH=CH$_2$ and aromatic ***C*** meta to -CH=CH$_2$); 130.82-131.11 (aromatic ***C***-CH$_2$-); 133.92 (aromatic ***C***-C=O); 135.50 (-***C***H=CH$_2$); 139.50 (aromatic ***C***-CH=CH$_2$); 158.91 (aromatic ***C***-OCH$_2$CH$_2$O-); 165.44-166.43 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{38}H_{48}O_{12}$, 696.8; found, 696.3.

di-1EOBCS: ^{1}H NMR ($CDCl_3$, TMS), δ：8.26 (s, 1H, Ar-***H***); 7.98-7.93 (m, 2H, Ar-***H***); 7.46-7.39 (m, 1H, -C***H***=CH_2); 6.61 (s, 4H, Ar-***H***); 6.51 (s, 2H，Ar-***H***); 5.77-5.73 (d, 1H, -CH=C***H***$_2$); 5.43-5.40 (d, 1H, -CH=C***H***$_2$); 5.30-5.26 (d, 4H, -COOC***H***$_2$-); 4.10 (t, 8H, ArOC***H***$_2$-); 3.74 (t, 8H, -C***H***$_2$OCH$_3$); 3.44 (s, 12H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 59.25 (-O***C***H$_3$); 67.03 (-COO***C***H$_2$-); 67.41 (ArO***C***H$_2$-); 70.96 (-***C***H$_2$OCH$_3$); 101.47 (aromatic ***C*** para to -COOCH$_2$-); 107.10 (aromatic ***C*** ortho to -COOCH$_2$- and -OCH$_2$CH$_2$OCH$_3$); 118.30 (-CH=***C***H$_2$); 127.61 (aromatic ***C*** ortho to -CH=CH$_2$ and -C=O); 130.31 (aromatic ***C*** para to -CH=CH$_2$, aromatic ***C*** meta to -CH=CH$_2$); 132.30-133.17 (aromatic ***C***-C=O); 135.54(-***C***H=CH$_2$); 137.73-137.86 (aromatic ***C***-CH$_2$-); 139.76 (aromatic ***C***-CH=CH$_2$); 160.12 (aromatic ***C***-OCH$_2$CH$_2$OCH$_3$); 165.54-166.45 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{36}H_{44}O_{12}$, 668.7; found, 668.3.

di-2EOBCS: ^{1}H NMR ($CDCl_3$, TMS), δ: 8.26 (s, 1H, Ar-***H***); 7.99-7.93 (m, 2H, Ar-***H***); 7.46-7.39 (m, 1H, -C***H***=CH_2); 6.59 (s, 4H, Ar-***H***); 6.48 (s, 2H，Ar-***H***); 5.78-5.73 (d, 1H, -CH=C***H***$_2$); 5.43-5.40 (d, 1H, -CH=C***H***$_2$); 5.29-5.27 (d, 4H, -COOC***H***$_2$-); 4.12 (t, 8H, ArOC***H***$_2$-); 3.85 (t, 8H, ArOCH$_2$C***H***$_2$-); 3.71 (m, 8H, ArOCH$_2$CH$_2$OC***H***$_2$-); 3.57 (t, 8H, ArOCH$_2$CH$_2$OCH$_2$C***H***$_2$-); 3.39 (s, 12H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 59.13 (-O***C***H$_3$); 67.05 (-COO***C***H$_2$-); 67.58 (ArO***C***H$_2$-); 69.69 (ArOCH$_2$***C***H$_2$O-); 70.76 (-O***C***H$_2$CH$_2$OCH$_3$); 71.97 (-***C***H$_2$OCH$_3$); 101.51 (aromatic ***C*** para to -COOCH$_2$-); 107.11 (aromatic ***C*** ortho to -COOCH$_2$- and -OCH$_2$CH$_2$O-); 117.95 (-CH=***C***H$_2$); 128.03 (aromatic ***C*** ortho to -CH=CH$_2$ and -C=O); 130.30 (aromatic ***C*** para to -CH=CH$_2$, aromatic ***C*** meta to -CH=CH$_2$); 132.32-133.17 (aromatic ***C***-C=O); 135.51(-***C***H=CH$_2$); 137.70-137.83 (aromatic ***C***-CH$_2$-); 139.77 (aromatic ***C***-CH=CH$_2$); 160.12 (aromatic ***C***-OCH$_2$CH$_2$O-); 165.52-166.46 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{44}H_{60}O_{16}$, 844.9; found, 844.4.

di-3EOBCS: ^{1}H NMR ($CDCl_3$, TMS), δ: 8.26 (s, 1H, Ar-***H***); 7.99-7.93 (m, 2H, Ar-***H***); 7.46-7.39 (m, 1H, -C***H***=CH_2); 6.59 (s, 4H, Ar-***H***); 6.47 (s, 2H，Ar-***H***); 5.77-5.73 (d, 1H, -CH=C***H***$_2$); 5.43-5.41 (d, 1H, -CH=C***H***$_2$); 5.29-5.27 (d, 4H, -COOC***H***$_2$-); 4.11(m, 8H, ArOC***H***$_2$-); 3.85 (m, 8H, ArOCH$_2$C***H***$_2$-); 3.73 (m, 8H, ArOCH$_2$CH$_2$OC***H***$_2$-); 3.69-3.64 (m, 8H, ArOCH$_2$CH$_2$OCH$_2$C***H***$_2$OC***H***$_2$-); 3.56-3.54 (m, 8H, -C***H***$_2$OCH$_3$-); 3.37 (s, 12H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 58.96 (-O***C***H$_3$); 67.07 (-COO***C***H$_2$-); 67.57 (ArO***C***H$_2$-); 69.66 (ArOCH$_2$***C***H$_2$O-); 70.57-70.84 (ArOCH$_2$CH$_2$O***C***H$_2$***C***H$_2$O***C***H$_2$-); 71.94 (-***C***H$_2$OCH$_3$); 101.51 (aromatic ***C*** para to -COOCH$_2$-); 107.08 (aromatic ***C*** ortho to -COOCH$_2$- and -OCH$_2$CH$_2$O-); 117.77 (-CH=***C***H$_2$); 128.04 (aromatic ***C*** ortho to -CH=CH$_2$ and -C=O); 129.84 (aromatic ***C*** para to -CH=CH$_2$, aromatic ***C*** meta to -CH=CH$_2$); 132.30-133.15 (aromatic ***C***-C=O); 135.56(-***C***H=CH$_2$); 137.69-137.81 (aromatic ***C***-CH$_2$-); 139.73(aromatic ***C***-CH=CH$_2$); 160.13 (aromatic ***C***-OCH$_2$CH$_2$O-); 165.52-166.46 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{54}H_{76}O_{20}$, 1021.1; found, 1020.5.

tri-1EOBCS: ^{1}H NMR ($CDCl_3$, TMS), δ: 8.25 (s, 1H, Ar-***H***); 7.97-7.90 (m, 2H, Ar-***H***); 7.44-7.37 (m, 1H, -C***H***=CH_2); 6.70 (m, 4H，Ar-***H***); 5.77-5.73 (d, 1H, -CH=C***H***$_2$); 5.43-5.40 (d, 1H, -CH=C***H***$_2$); 5.27-5.25 (d, 4H, -COOC***H***$_2$-); 4.16 (t, 12H, ArOC***H***$_2$-); 3.75-3.71 (m, 12H, -C***H***$_2$OCH$_3$); 3.43 (s, 18H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 58.80-59.10 (-O***C***H$_3$); 67.15-67.19 (-COO***C***H$_2$-); 69.10 (ArO***C***H$_2$CH$_2$O- and meta to -COOCH$_2$-); 71.11 (ArO***C***H$_2$- and para to -COOCH$_2$-); 71.84-72.24 (-***C***H$_2$OCH$_3$); 108.66 (aromatic ***C*** ortho to -OCH$_2$CH$_2$OCH$_3$); 117.80 (-CH=***C***H$_2$); 128.19-128.45 (aromatic ***C*** ortho to -CH=CH$_2$ and –C=O); 130.38 (aromatic ***C*** para to -CH=CH$_2$, aromatic ***C*** meta to -CH=CH$_2$); 130.95-

131.07 ((aromatic ***C***-CH_2); 132.43-133.17 (aromatic ***C***-C=O); 134.80 (-***C***H=CH_2); 139.02 (aromatic ***C***-$OCH_2CH_2OCH_3$ and para to -$COOCH_2$-); 139.64 (aromatic ***C***-CH=CH_2); 152.88 (aromatic ***C***-$OCH_2CH_2OCH_3$ and meta to -$COOCH_2$-); 165.51-166.50 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{42}H_{56}O_{16}$, 816.9; found, 816.4.

tri-2EOBCS: ^{1}H NMR ($CDCl_3$, TMS), δ: 8.25 (s, 1H, Ar-***H***); 7.97-7.90 (m, 2H, Ar-***H***); 7.44-7.37 (m, 1H, -C***H***=CH_2); 6.68 (m, 4H，Ar-***H***); 5.77-5.73 (d, 1H, -CH=C***H***$_2$); 5.43-5.40 (d, 1H, -CH=C***H***$_2$); 5.26-5.24 (d, 4H, -COOC***H***$_2$-); 4.17 (t, 12H, ArOC***H***$_2$-); 3.85-3.80 (m, 12H, $ArOCH_2C$***H***$_2$-); 3.71 (t, 12H, $ArOCH_2CH_2OC$***H***$_2$-); 3.55 (t, 12H, $ArOCH_2CH_2OCH_2C$***H***$_2$-); 3.37 (s, 18H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 58.03 (-O***C***H_3); 67.26 (-COO***C***H_2-); 68.82 (ArO***C***H_2-); 69.66 ($ArOCH_2$***C***H_2O-); 70.33-70.38 (-O***C***$H_2CH_2OCH_3$); 71.84-71.94 (-***C***H_2OCH_3); 108.85 (aromatic ***C*** ortho to -OCH_2CH_2O-); 117.92 (-CH=***C***H_2); 127.37 (aromatic ***C*** ortho to -CH=CH_2 and -C=O); 129.60 (aromatic ***C*** para to -CH=CH_2, aromatic ***C*** meta to -CH=CH_2); 130.87-131.20 (aromatic ***C***-CH_2); 132.25-133.11 (aromatic ***C***-C=O); 134.51 (-***C***H=CH_2); 138.32 (aromatic ***C***-OCH_2CH_2O- and para to -$COOCH_2$-); 139.61 (aromatic ***C***-CH=CH_2); 152.65 (aromatic ***C***-OCH_2CH_2O- and meta to -$COOCH_2$-); 165.48-166.27 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{54}H_{80}O_{22}$, 1081.2; found, 1080.5.

tri-3EOBCS: ^{1}H NMR ($CDCl_3$, TMS), δ: 8.25 (s, 1H, Ar-***H***); 7.98-7.91 (m, 2H, Ar-***H***); 7.44-7.37 (m, 1H, -C***H***=CH_2); 6.68 (m, 4H，Ar-***H***); 5.77-5.73 (d, 1H, -CH=C***H***$_2$); 5.43-5.40 (d, 1H, -CH=C***H***$_2$); 5.26-5.24 (d, 4H, -COOC***H***$_2$-); 4.16 (t, 12H, ArOC***H***$_2$-); 3.85-3.79 (m, 12H, $ArOCH_2C$***H***$_2$-); 3.73 (m, 12H, $ArOCH_2CH_2OC$***H***$_2$-); 3.65 (m, 24H, $ArOCH_2CH_2OCH_2C$***H***$_2OC$***H***$_2$-); 3.54 (m, 12H, -C***H***$_2OCH_3$-); 3.37 (s, 18H, -OC***H***$_3$).
^{13}C NMR ($CDCl_3$, TMS), δ: 58.28 (-O***C***H_3); 67.14 (-COO***C***H_2-); 68.80 (ArO***C***H_2CH_2O-); 69.58 ($ArOCH_2$***C***H_2-); 70.36-70.67 ($ArOCH_2CH_2O$***C***H_2***C***H_2O ***C***H_2-); 71.74-72.19 (-***C***H_2OCH_3); 108.86 (aromatic ***C*** ortho to -OCH_2CH_2O-); 117.75 (-CH=***C***H_2); 127.31-128.51 (aromatic ***C*** ortho to -CH=CH_2 and -C=O); 128.93 (aromatic ***C*** para to -CH=CH_2, aromatic ***C*** meta to -CH=CH_2); 130.79-131.14 (aromatic ***C***-CH_2); 132.23-133.87 (aromatic ***C***-C=O); 135.44 (-***C***H=CH_2); 138.40 (aromatic ***C***-OCH_2CH_2O- and para to -$COOCH_2$-); 139.46 (aromatic ***C***-CH=CH_2); 152.61 (aromatic ***C***-OCH_2CH_2O- and meta to -$COOCH_2$-); 165.32-166.30 (***C***=O).
Mass Spectrometry (MS) (m/z) [M] Calcd for $C_{66}H_{104}O_{28}$, 1345.5; found, 1344.6.

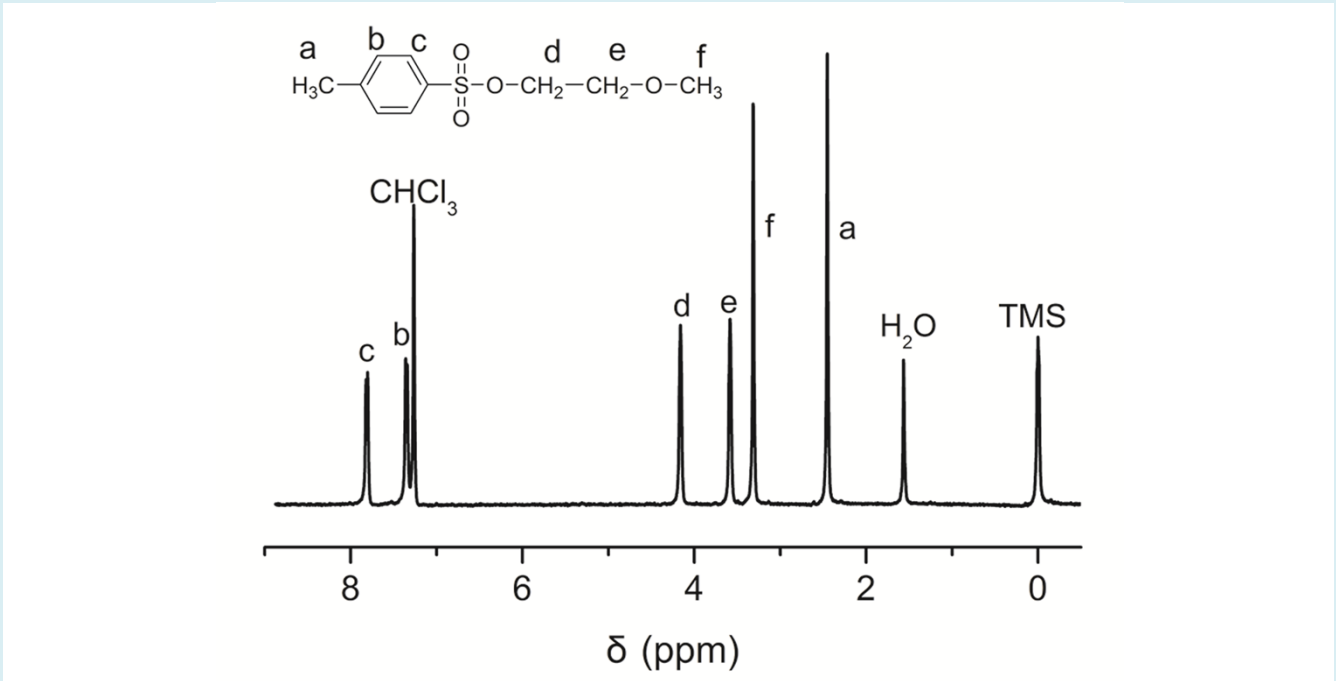

Fig. S1 ^{1}H NMR spectra of 2-methoxyethyl 4-methylbenzenesulfonate.

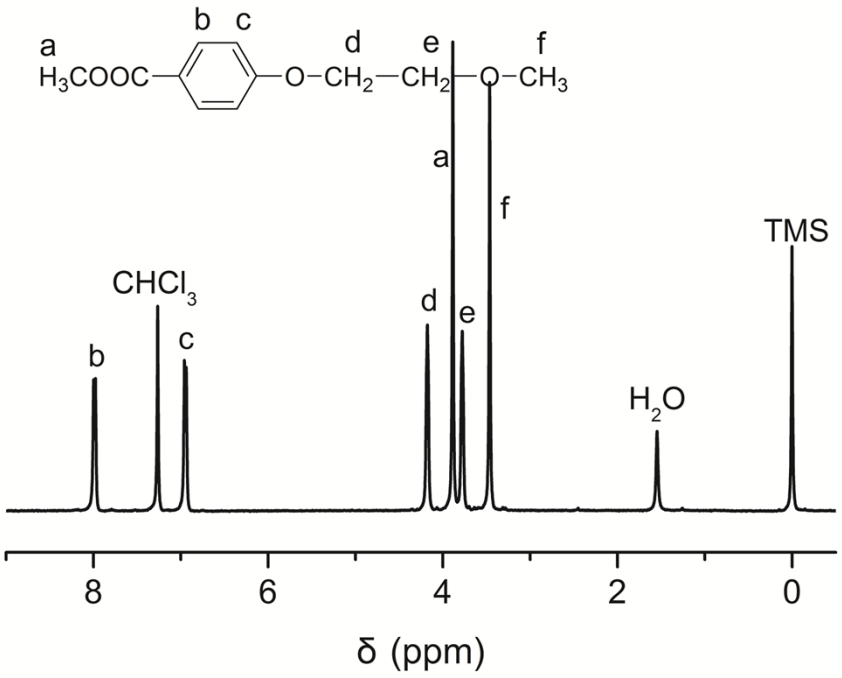

Fig. S2 ^{1}H NMR spectra of methyl 4-(2-methoxyethoxy)benzoate.

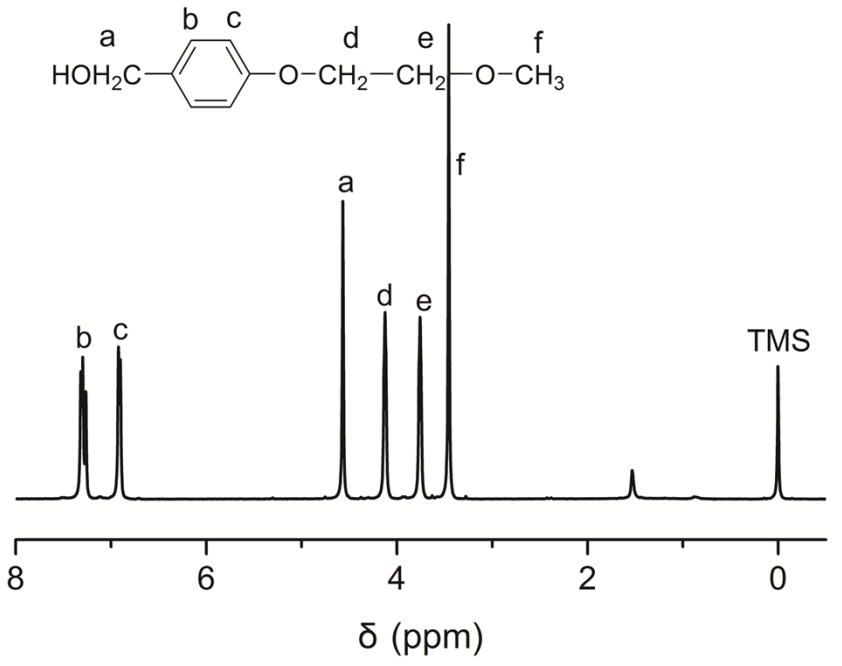

Fig. S3 ^{1}H NMR spectra of (4-(2-methoxyethoxy)phenyl)methanol.

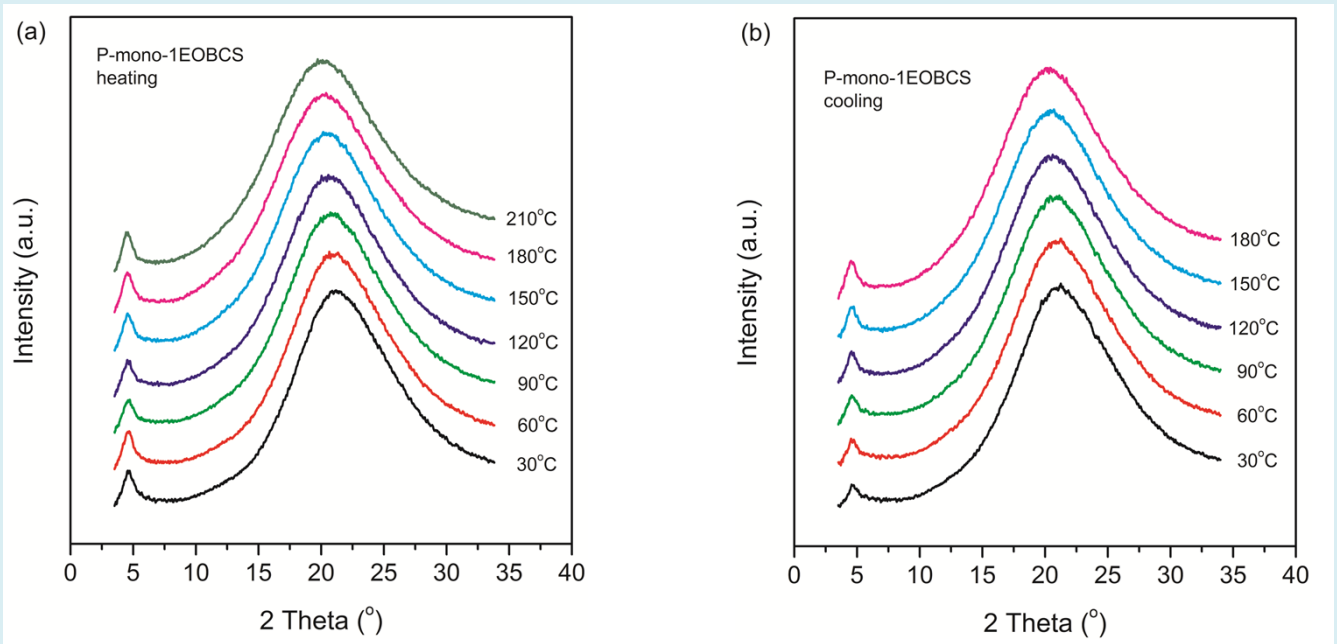

Fig.S4 1D WAXD patterns of the P-mono-1EOBCS during (a) the second heating process and (b) the second cooling process.

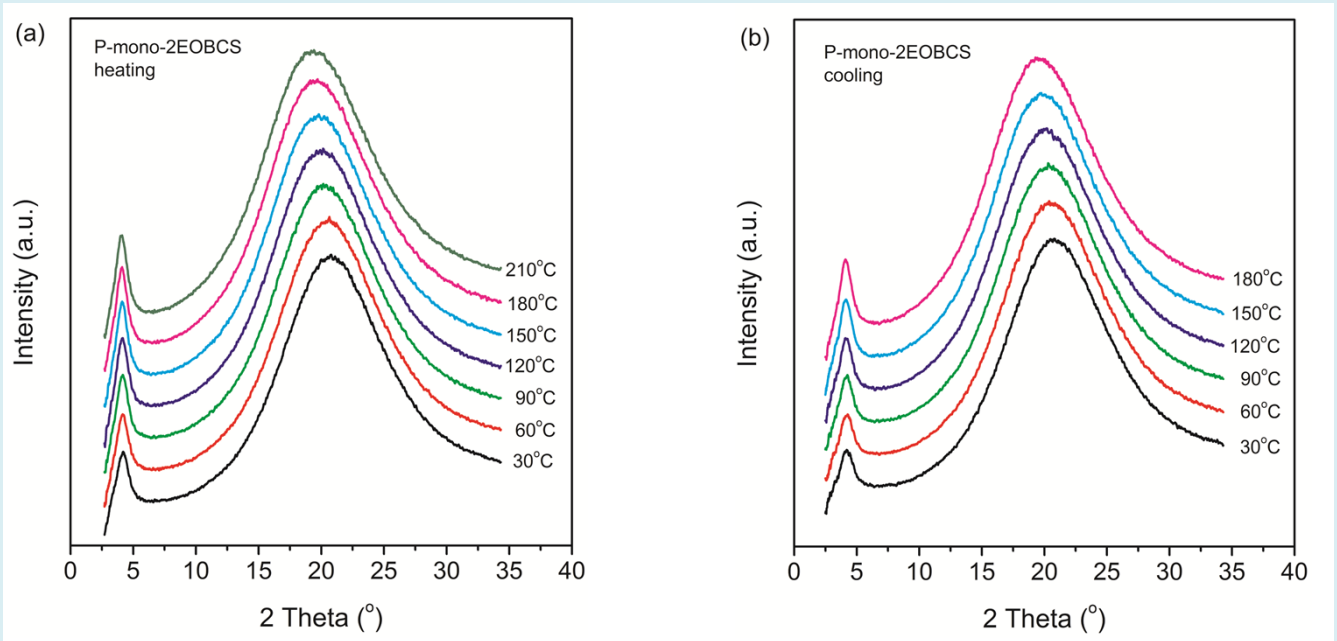

Fig. S5 1D WAXD patterns of the P-mono-2EOBCS during (a) the second heating process and (b) the second cooling process.

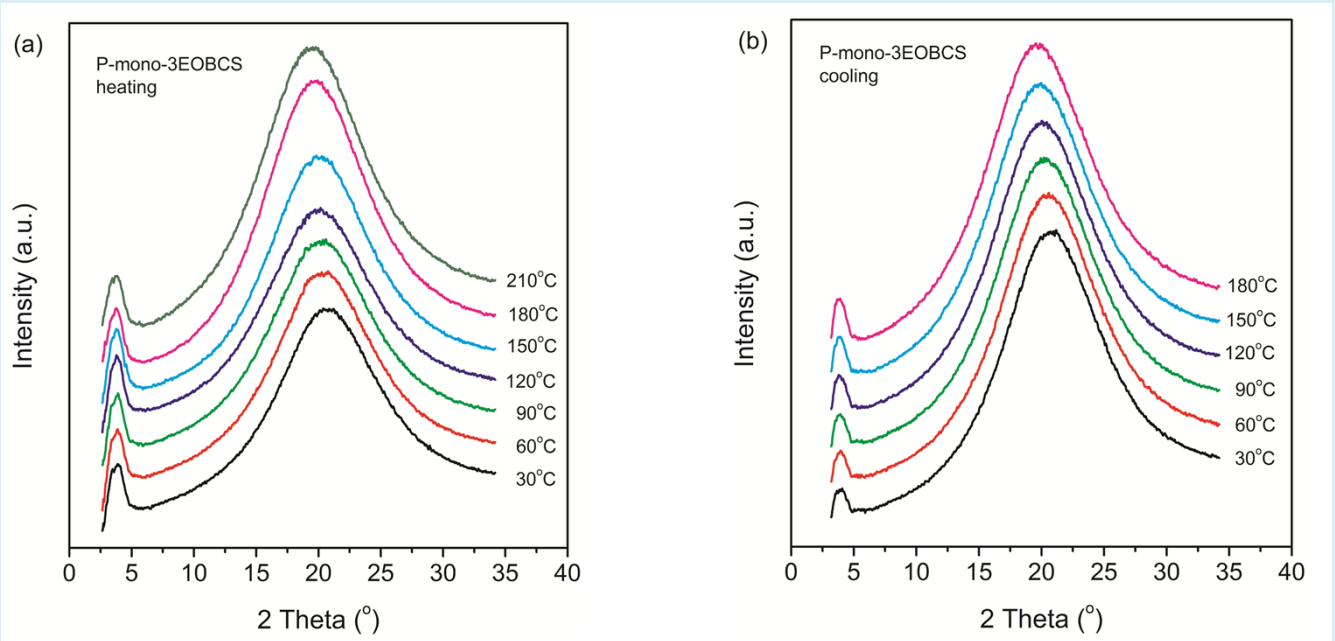

Fig. S6 1D WAXD patterns of the P-mono-3EOBCS during (a) the second heating process and (b) the second cooling process.

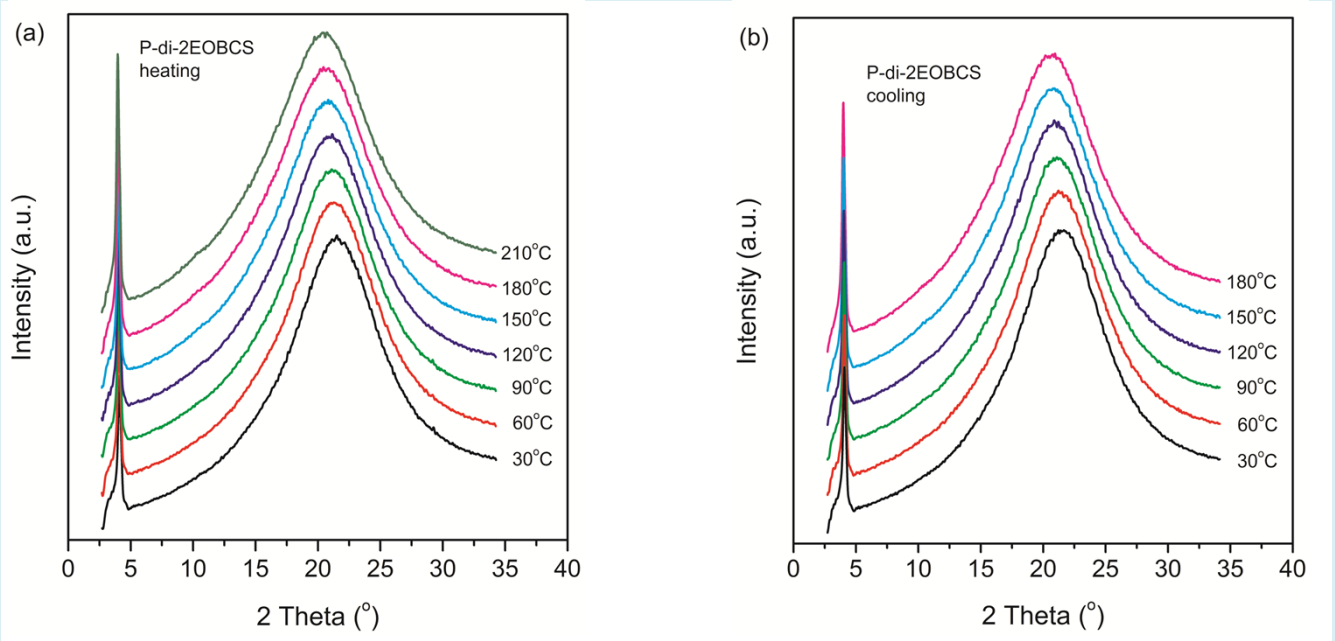

Fig. S7 1D WAXD patterns of the P-di-2EOBCS during (a) the second heating process and (b) the second cooling process.

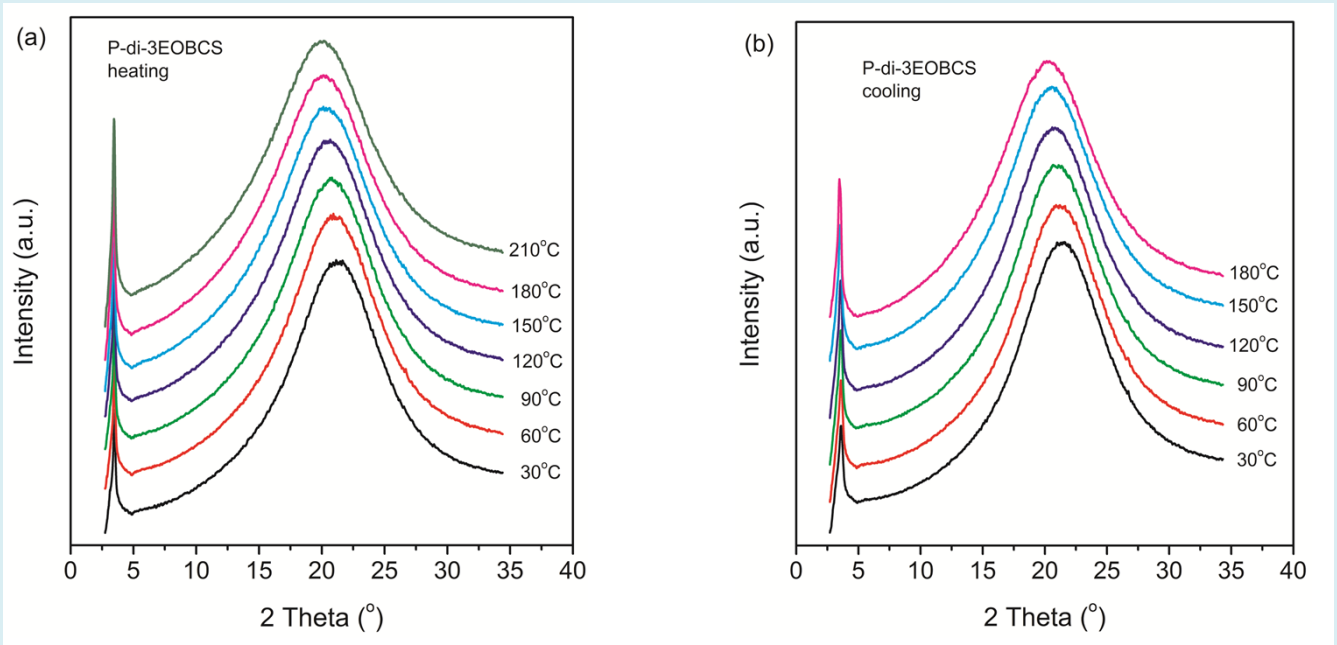

Fig. S8 1D WAXD patterns of the P-di-3EOBCS during (a) the second heating process and (b) the second cooling process.

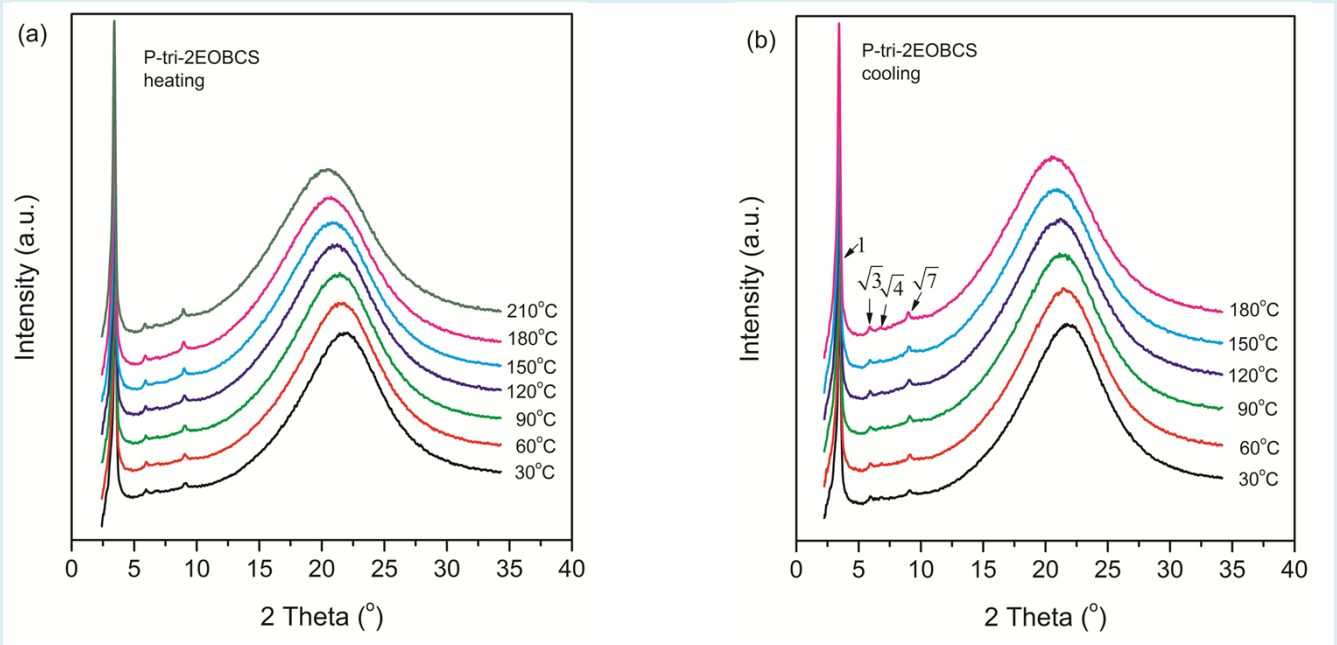

Fig. S9 1D WAXD patterns of the P-tri-2EOBCS during (a) the second heating process and (b) the second cooling process.

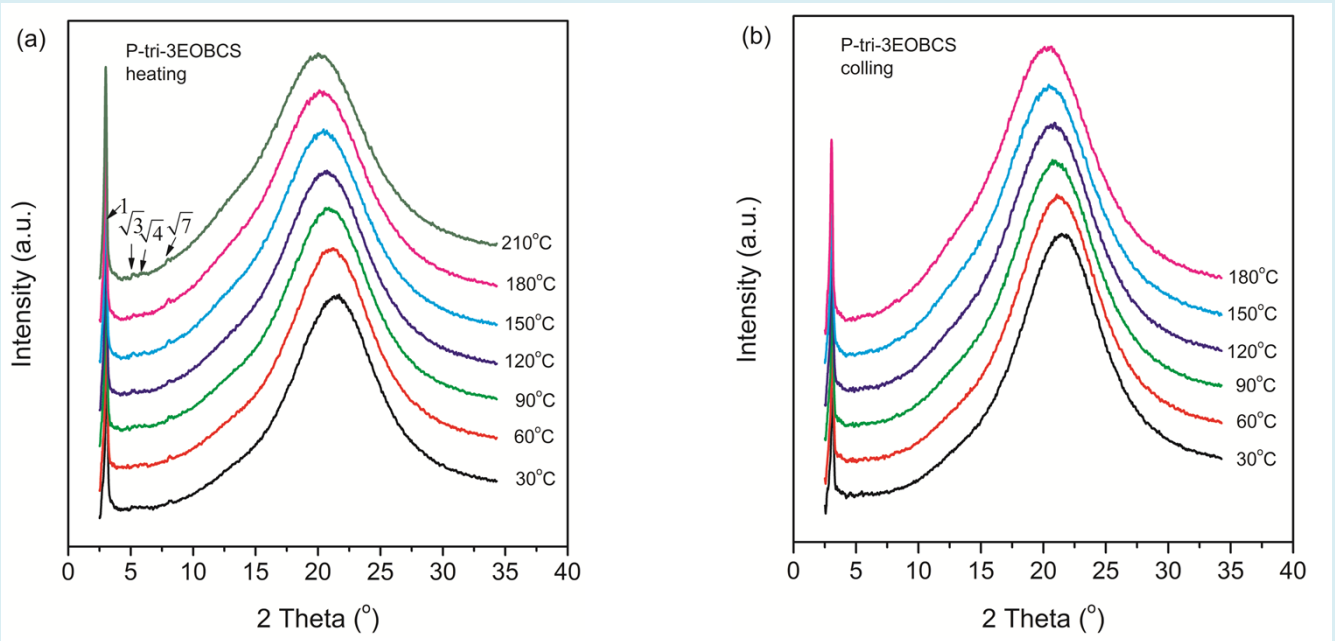

Fig. S10 1D WAXD patterns of the P-tri-3EOBCS during (a) the second heating process and (b) the second cooling process.

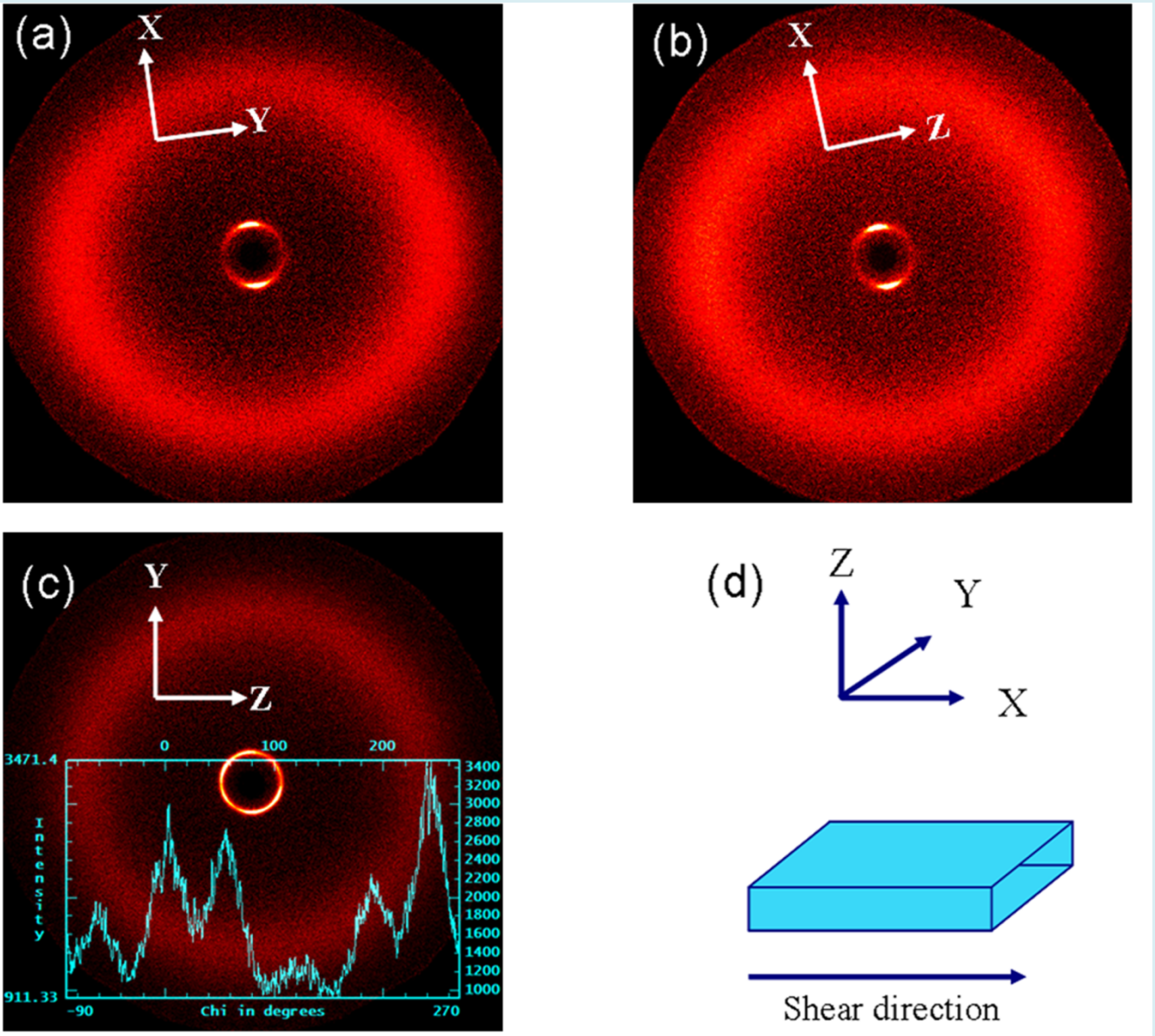

Fig. S11 2D WAXD patterns of a sheared P-di-2EOBCS sample recorded with the X-ray incident beam along Z (a), Y (b), and X (c) directions and the shearing geometry (d).