Electronic Supplementary Material (ESI) for Polymer Chemistry.
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Chemical Vapour Deposition of Soluble Poly(*p*-xylylene) Copolymers with Tuneable Properties

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Supporting Information

IR-data for P(PX-*co*-HEMA) copolymers

P(PX-methyl-*co*-HEMA) IR (ν/cm^{-1}): 3437 (m), 2998 (w), 2935 (m), 2860 (w), 1722 (s), 1613 (w), 1537 (w), 1500 (m), 1450 (m), 1383 (w), 1257 (m), 1154 (s), 1075 (m), 1025 (m), 944(w), 881 (m), 822 (s), 751 (w).

P(PX-ethyl-*co*-HEMA) IR (ν/cm^{-1}): 3434 (m), 2996 (w), 2962 (m), 2930 (m), 2869 (m), 1722 (s), 1612 (w), 1570 (w), 1497 (m), 1454 (m), 1417 (w), 1321 (w), 1257 (w), 1159 (s), 1072 (m), 1025 (m), 944(w), 884 (m), 820 (s), 752 (w).

P(PX-propyl-*co*-HEMA) IR (ν/cm^{-1}): 3438 (m), 2996 (w), 2956 (s), 2930 (s), 2867 (m), 1724 (s), 1613 (w), 1573 (w), 1500 (s), 1454 (s), 1418 (w), 1377 (w), 1339 (w), 1259 (w), 1162 (m), 1078 (m), 1027 (w), 945(w), 877 (m), 820 (s), 751 (w).

P(PX-butyl-*co*-HEMA) IR (ν/cm^{-1}): 3456 (m), 2999 (w), 2956 (s), 2927 (s), 2860 (m), 1724 (s), 1612 (w), 1570 (w), 1500 (s), 1458 (s), 1417 (w), 1378 (w), 1338 (w), 1261 (m), 1163 (m), 1089 (s), 1021 (m), 944(w), 879 (w), 819 (s), 755 (w).

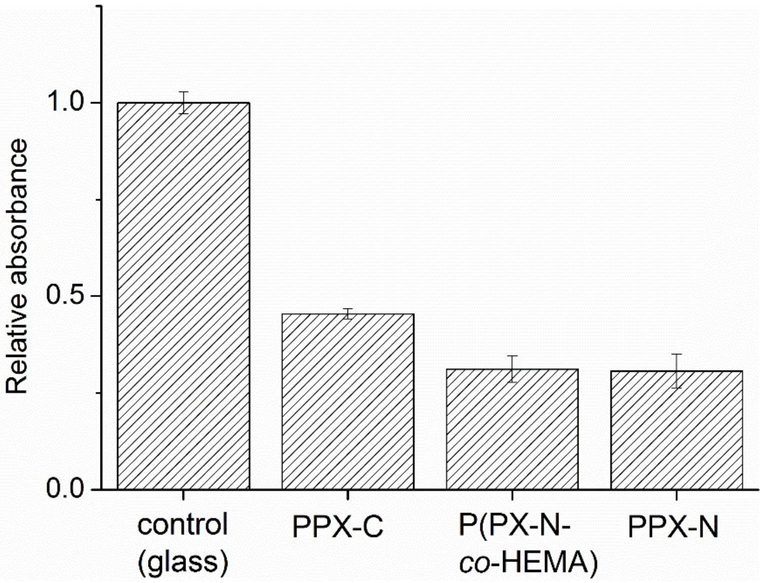

Figure S1 Absorbance at 550 nm relative to glass control for HUVEC seeded on three different PPX polymer samples after 3 days of incubation time.

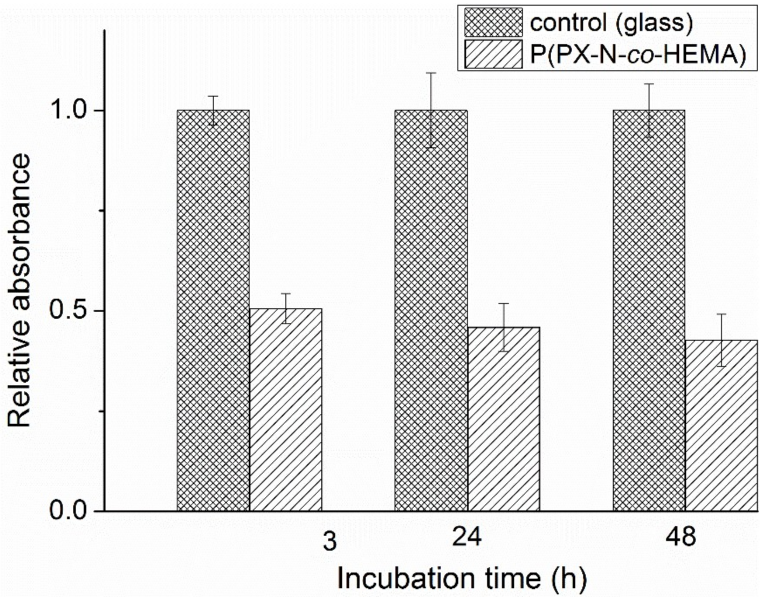

Figure S2 Absorbance at 550 nm relative to glass control for HUVEC seeded on P(PX-N-*co*-HEMA) coated glass slides at different incubation times.

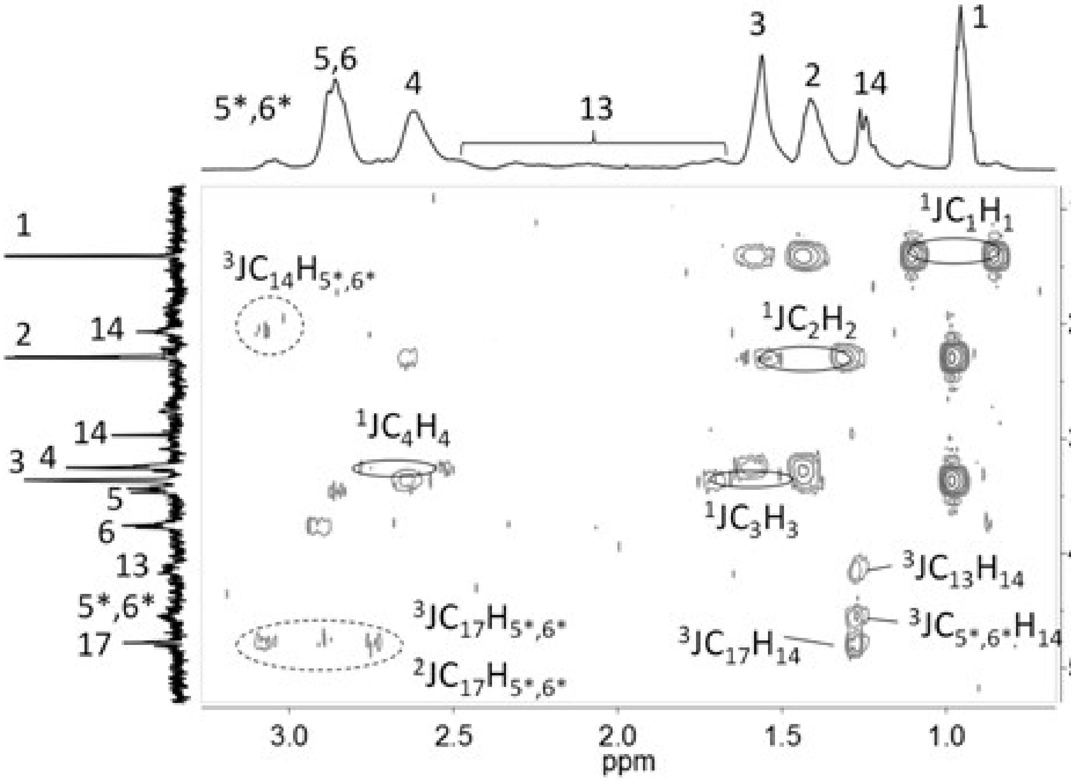

Figure S3 Part of the ^{1}H-^{13}C HMBC spectrum of p(PX-butyl-*co*-HEMA) **3e** (^{1}H-NMR region 3.5-0.5 ppm, ^{13}C-NMR region 53-8 ppm.

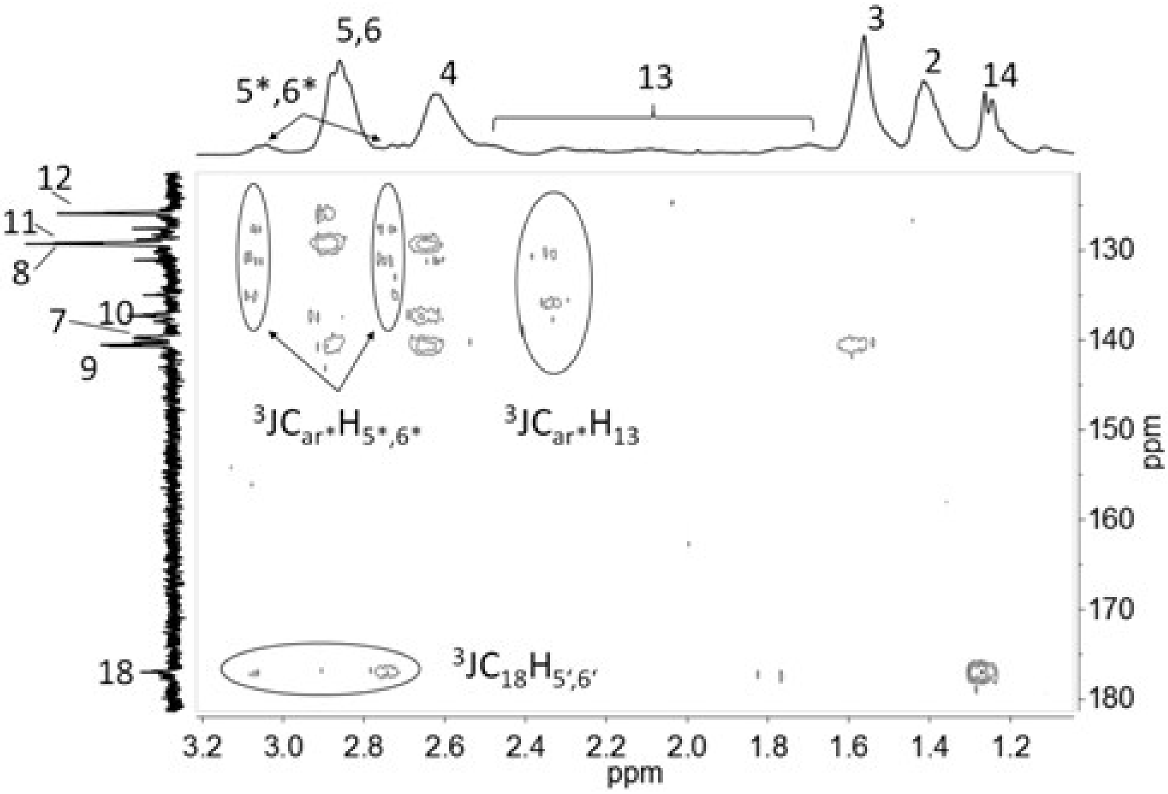

Figure S4 Part of the ^{1}H-^{13}C HMBC spectrum of p(PX-butyl-*co*-HEMA) **3e** (^{1}H-NMR region 3.2-1 ppm, ^{13}C-NMR region 182-121 ppm).

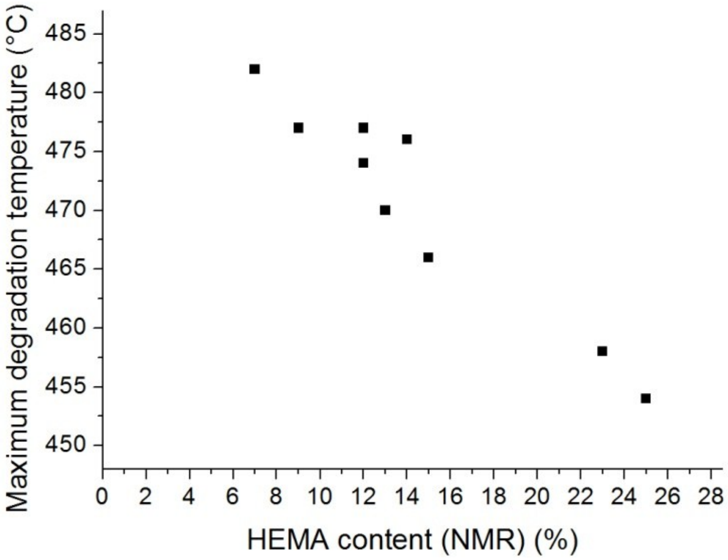

Figure S5 Thermal stability of p(PX-butyl-*co*-HEMA) **3e** copolymer. The maximum degradation temperature of the copolymers decreases with increasing HEMA comonomer content due to less thermal stability of HEMA units.

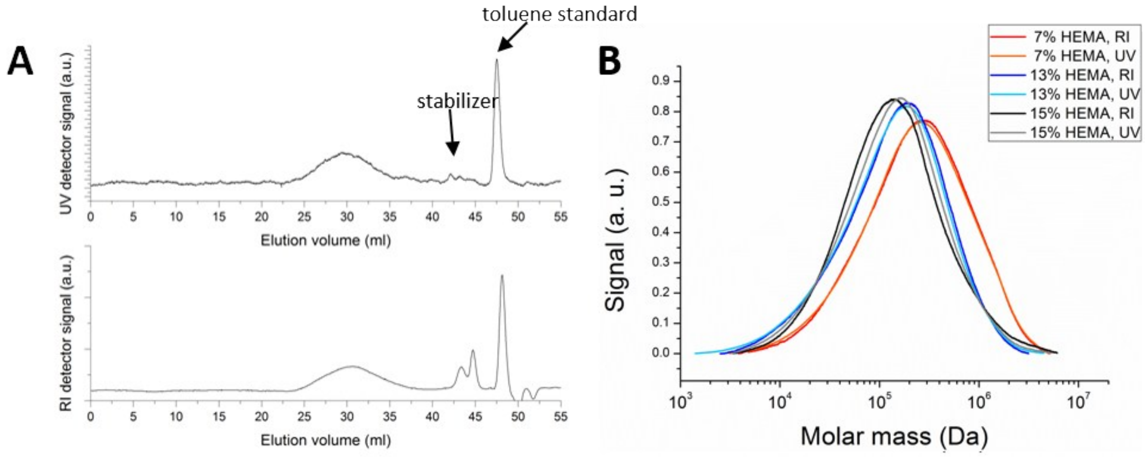

Figure S6 GPC traces (eluent THF) of p(PX-butyl-*co*-HEMA) **3e** with different HEMA content recorded with RI and UV detector. a) Elugramm of run 4 (see Table 1) with 12% HEMA content b) Molecular weight plot of runs 3 (7% HEMA), 5 (13% HEMA) and 6 (15% HEMA).

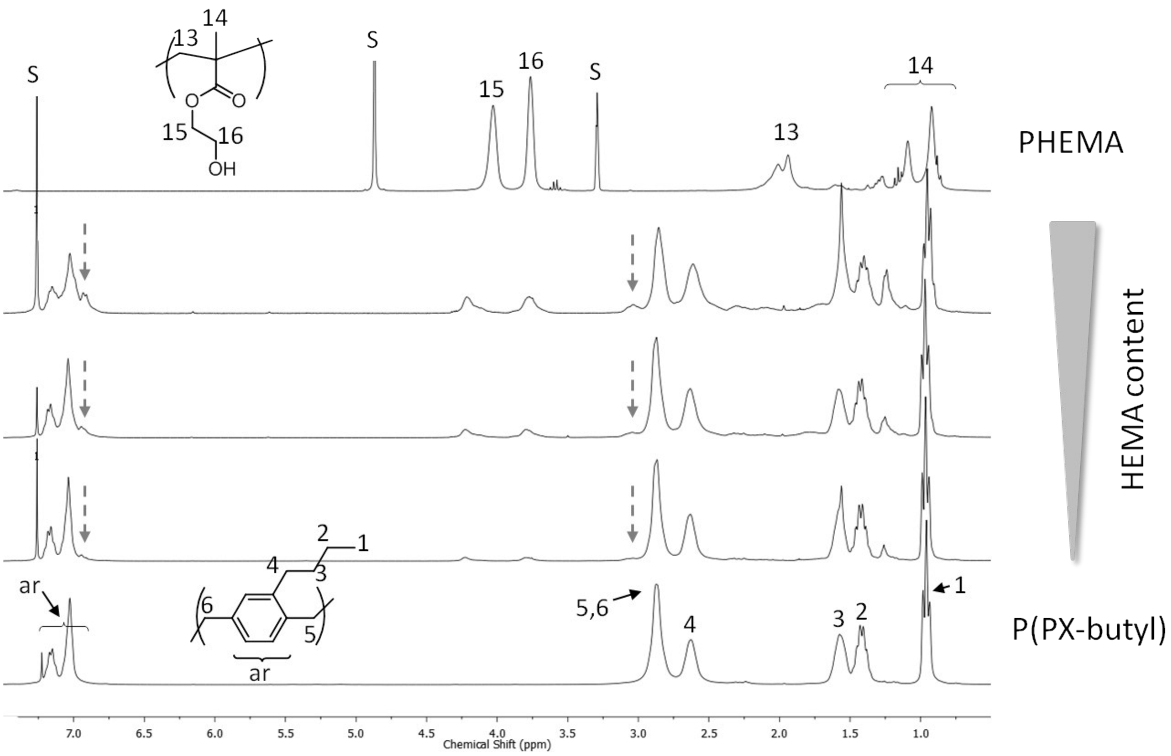

Figure S7 ^{1}H-NMR spectra of PHEMA and p(PX-butyl) homopolymers and P(PX-bu-co-HEMA) copolymers. With increasing HEMA content (from bottom to top) additional resonance signals appear (marked with dashed arrow), which can be assigned to the PX-butyl units ($H_{5,6*}$ and H_{ar*}) adjacent to HEMA units by 2D-NMR spectra. “S” marks solvent signals for CDCl 3 (PPX-butyl and copolymers) and MeOH-d 4 (PHEMA).