Electronic Supplementary Material (ESI) for Polymer Chemistry.

Supporting Information

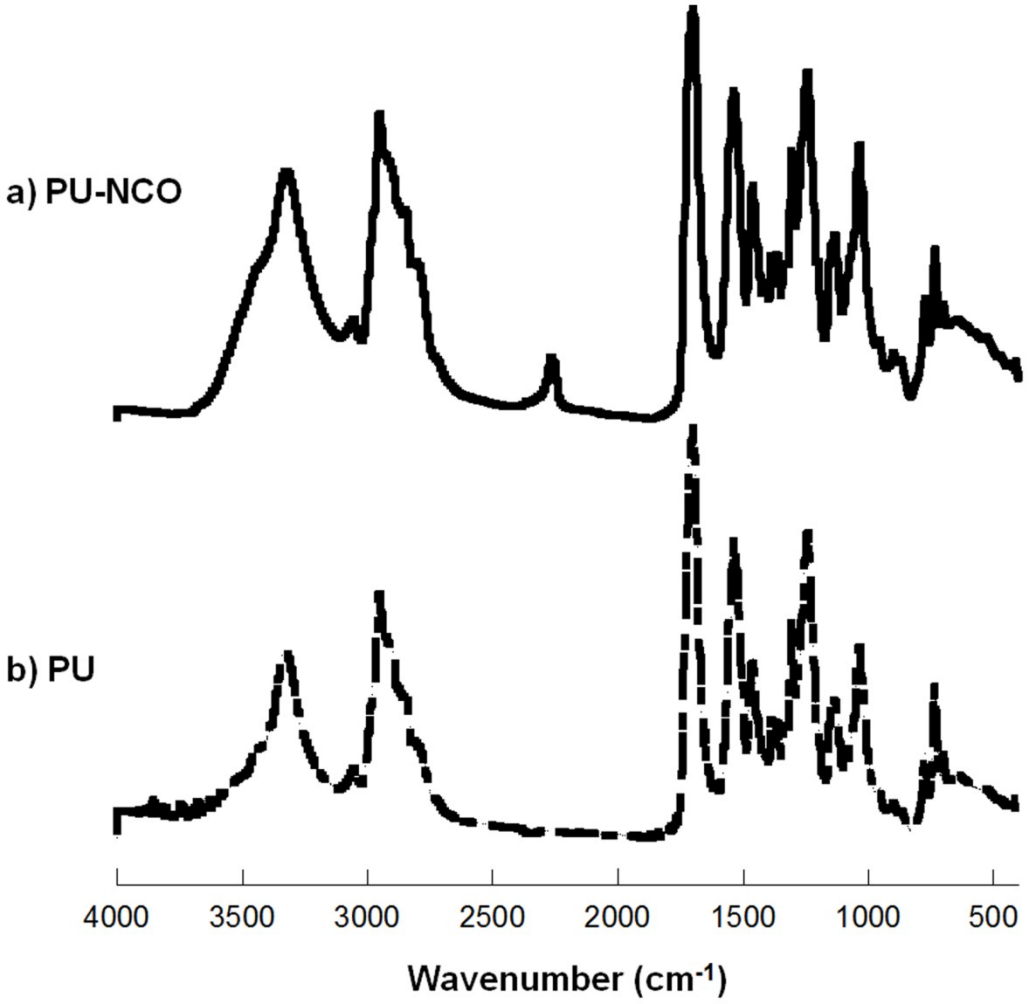
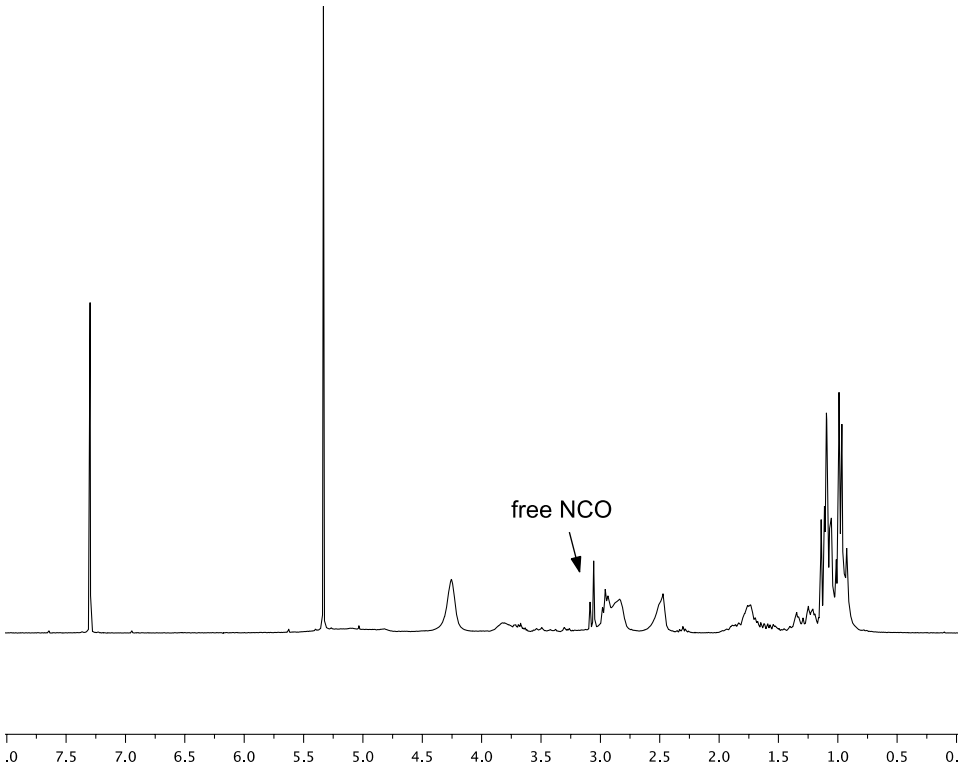


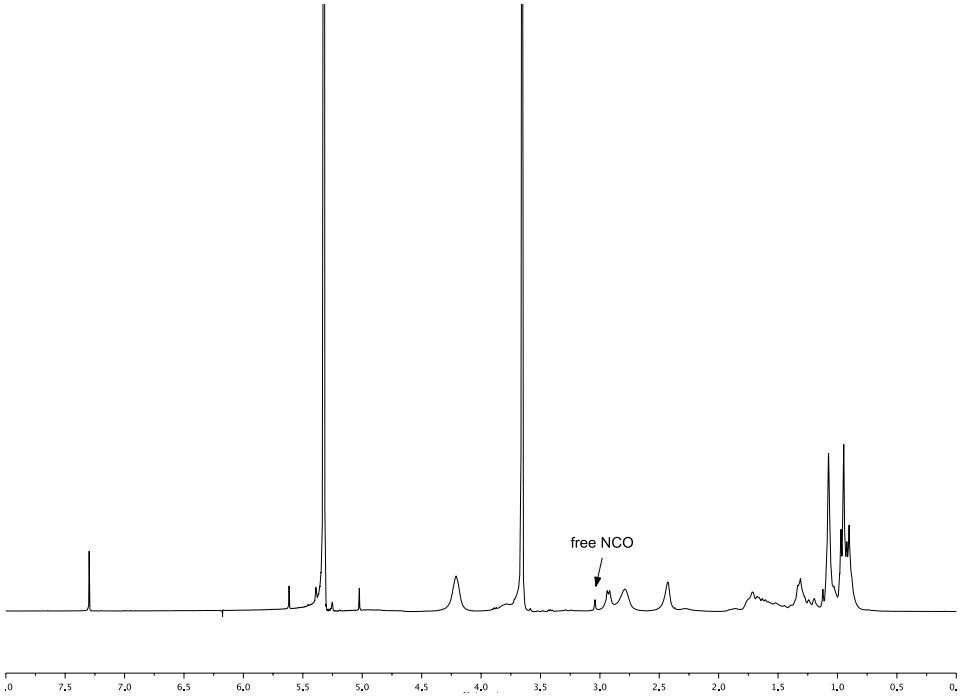
Fig. S1 FTIR spectra of (a) PU-NCO and (b) PU.

a) PU-NCO



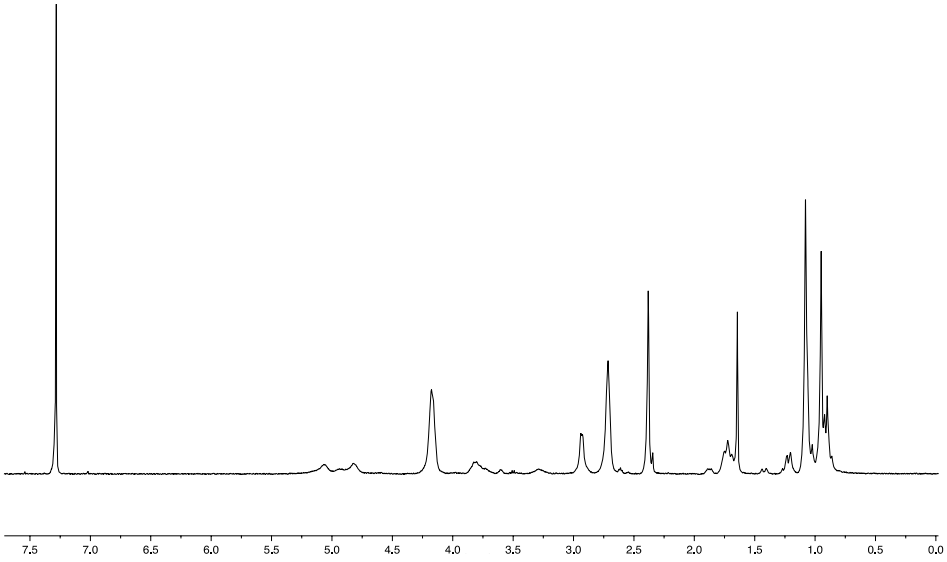
^{1}H NMR ($CDCl_3$, 400 MHz): 4.20 (s, NHCOOCH_2, 4H), 3.80-3.40 (m, OCONHCH, 1H), 3.40-3.20 (OCNCH, 0.1 H), 3.30-2.90 (m, OCONHCH_2, 2H), (m, OCNCH_2, 0.1 H), 2.80-2.60 (m, NCH_2, 4H), 2.40-2.20 (m, NCH_3, 3H), 1.80-0.80 (m, OCONHCH$_2$CH_2, 2H), (m, OCONHCHCH_2, 2H), (m, CH_3, 6H), (m, CH_3, 3H) ppm.

b) PU-PEG-NCO



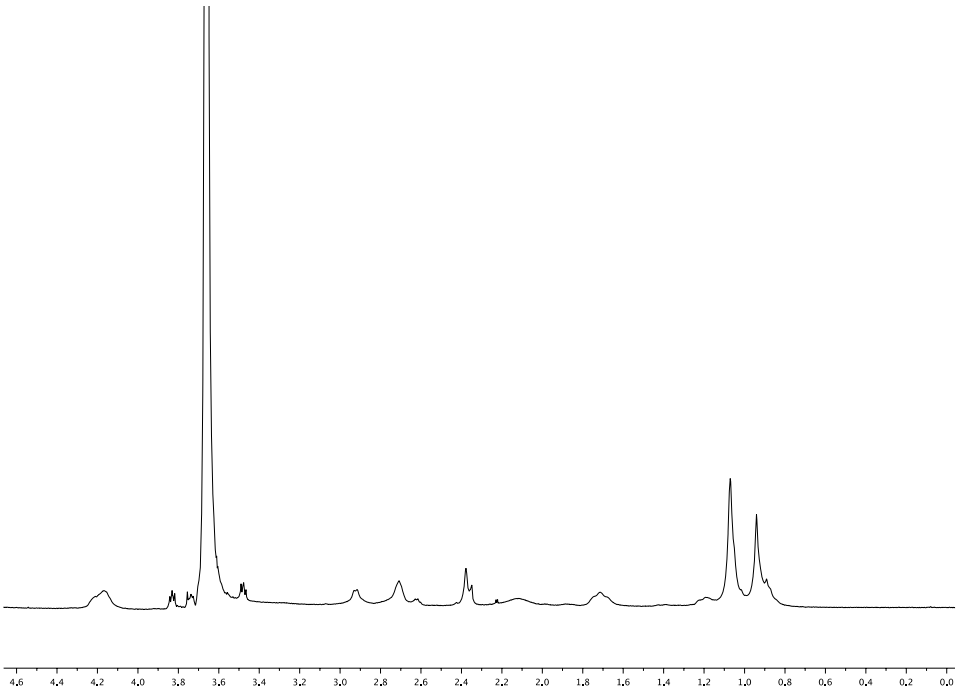
^{1}H NMR ($CDCl_3$, 400 MHz): 4.20 (s, NHCOOCH_2, 4H), 3.80-3.40 (m, OCH_2, 14H), (m, OCONHCH, 1H), 3.40-3.20 (OCNCH, 0.1 H), 3.30-2.90 (m, OCONHCH_2, 2H), (m, OCNCH_2, 0.1 H), 2.80-2.60 (m, NCH_2, 4H), 2.40-2.20 (m, NCH_3, 3H), 1.80-0.80 (m, $OCONHCH_2CH_2$, 2H), (m, OCONHCHCH_2, 2H), (m, CH_3, 6H), (m, CH_3, 3H) ppm.

c) PU



^{1}H NMR ($CDCl_3$, 400 MHz): 4.20 (s, NHCOOCH_2, 4H), 3.80-3.40 (m, OCONHCH, 1H), 3.30-2.90 (m, OCONHCH_2, 2H), 2.80-2.60 (m, NCH_2, 4H), 2.40-2.20 (m, NCH_3, 3H), 1.80-0.80 (m, OCONHCH$_2$CH_2, 2H), (m, OCONHCHCH_2, 2H), (m, CH_3, 6H), (m, CH_3, 3H) ppm.

d) PU-PEG



^{1}H NMR ($CDCl_3$, 400 MHz): (s, N*H*, 2H), 4.20 (s, NHCOOCH_2, 4H), 3.80-3.40 (m, OCH_2, 14H), (m, OCONHC*H*, 1H), 3.30-2.90 (m, OCONHCH_2, 2H), 2.80-2.60 (m, NCH_2, 4H), 2.40-2.20 (m, NCH_3, 3H), 1.80-0.80 (m, OCONHCH$_2$CH_2, 2H), (m, OCONHCHCH_2, 2H), (m, CH_3, 6H), (m, CH_3, 6H) ppm.

Fig. S2 ^{1}H NMR spectra of (a) PU-NCO, (b) PU-PEG-NCO, (c) PU, and (d) PU-PEG.

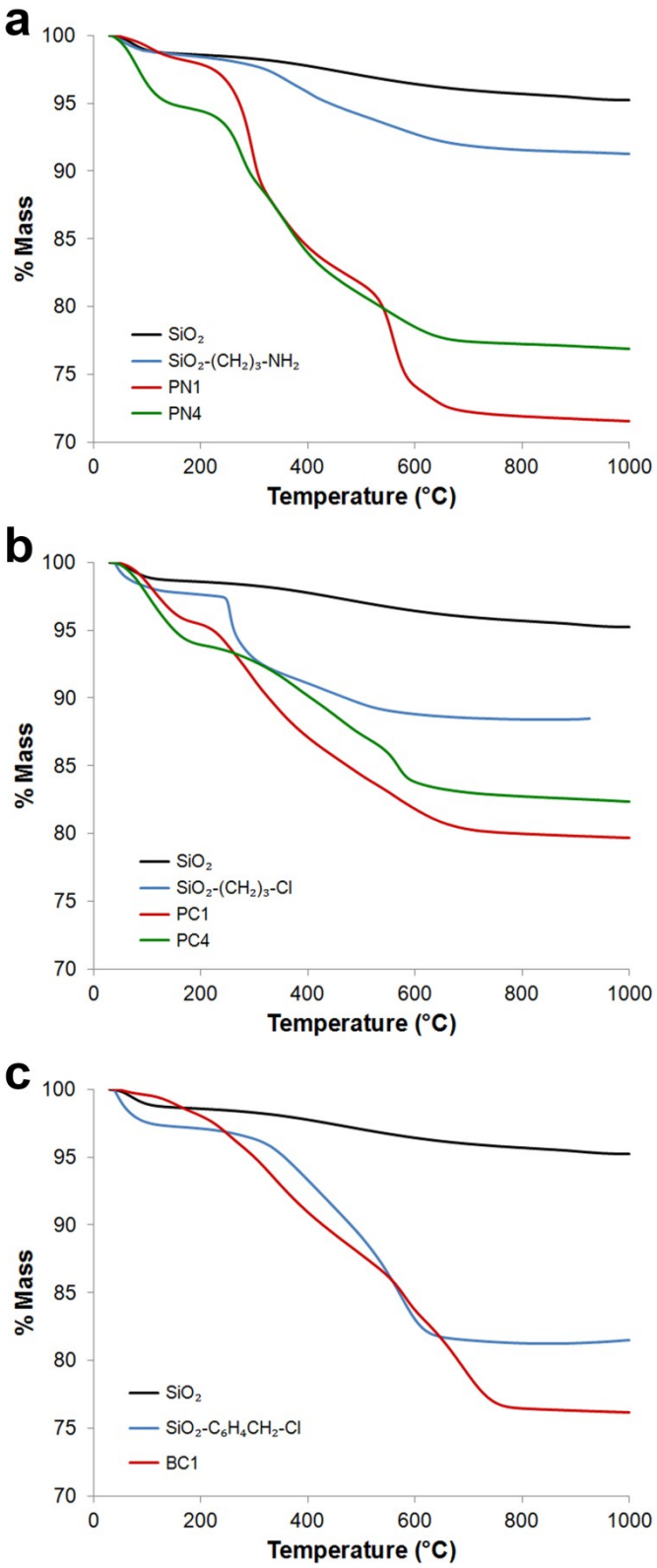


Fig. S3 TGA curves of (a) PN1 and PN4 particles synthesized via surface-to-end-group grafting strategy from SiO_2-$(CH_2)_3NH_2$ particles, (b) PC1 and PC4 particles synthesized via surface-to-backbone grafting strategy from SiO_2-$(CH_2)_3Cl$ particles, and (c) BC1 particles synthesized via surface-to-backbone grafting strategy from SiO_2-$C_6H_4CH_2Cl$ particles.