Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2016





Fig. S1. The NMR spectra of (a) PCL-CC-PCL (top) and Br-PCL-CC-PCL-Br (bottom), (b) P*t*BMA-PCL-CC-PCL-P*t*BMA with a high length of *t*BMA (top), and PMAA-PCL-CC-PCL-PMAA (bottom).



Fig. S2. GPC profiles of (a) PCL-SS-PCL and PtBMA-PCL-SS-PCL-PtBMA with low (L), middle (M) and high (H) lengths of tBMA; (b) PCL-CC-PCL and PtBMA-PCL-CC-PCL-PtBMA.



Fig. S3. The number average molecular weight of P*t*BMA-PCL-SS-PCL-P*t*BMA and the degree of polymerization (DP) of *t*BMA with reaction time at 40 or 80°C.







Fig. S4. FTIR spectra of PCL-SS-PCL, *Pt*BMA-PCL-SS-PCL-*Pt*BMA with (a) low (L) and (b) middle (M) lengths of *t*BMA, and their corresponding MAA-PCL-SS-PCL-PMAA.