

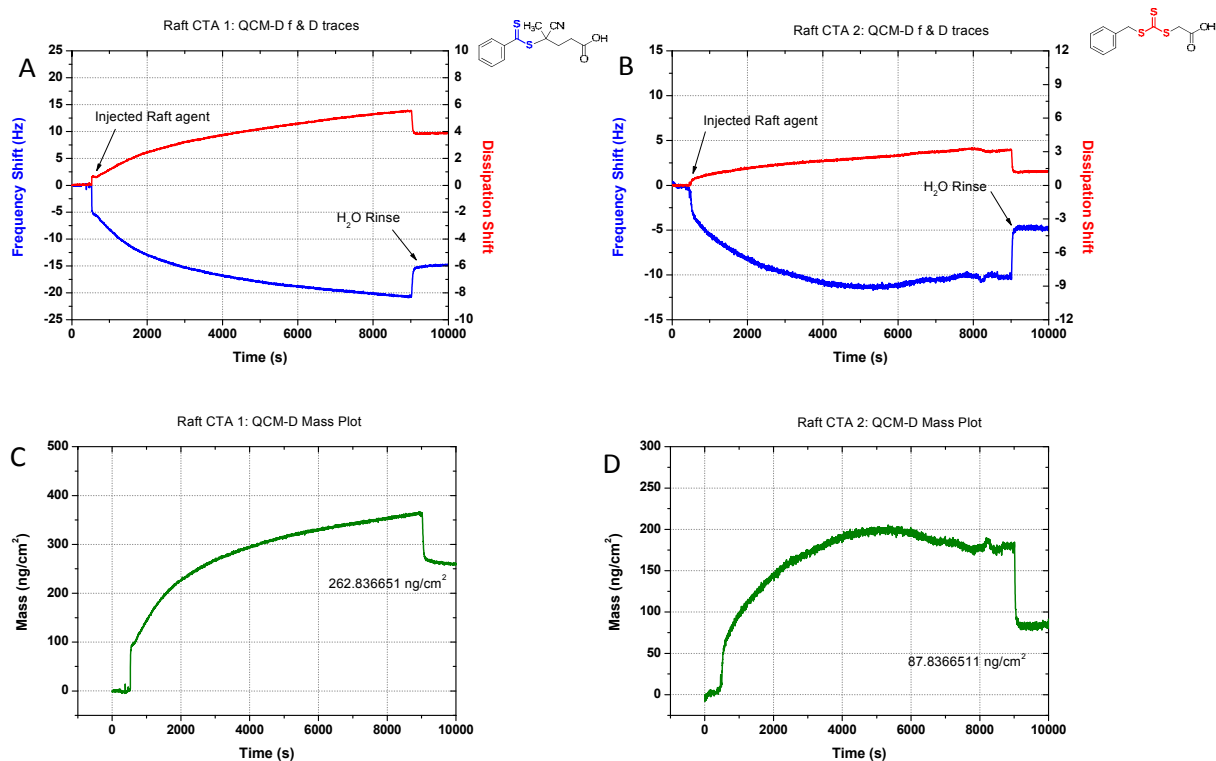
Supporting Information

Control Polymer Analysis:

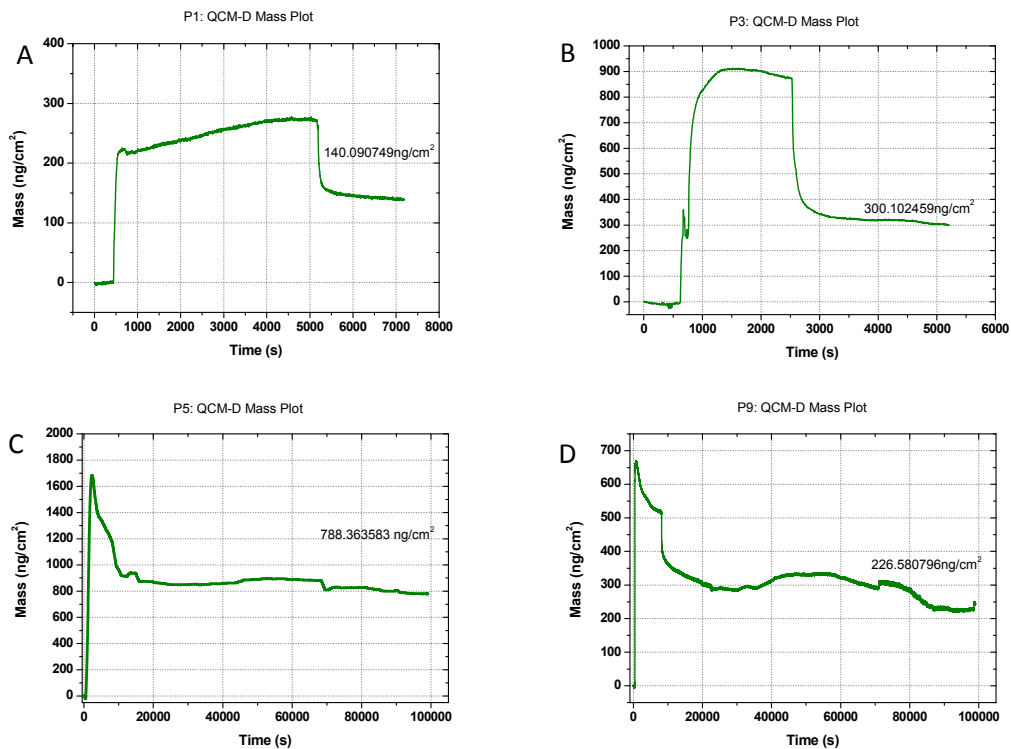
^1H NMR (D_2O) δ (ppm): 6.2 (s, vinyl peak 1H), 5.6 (s, vinyl peak 1H), 4.10 (m, $\text{COOCH}_2\text{CH}_2$, 2H), 3.66 (t, OCH_2CH_2 , 2H), 3.54 (s, repeat unit CH_2 4nH), 3.32 (s, methyl, OCH_3 3nH), 2.5 (d, $\text{CH}_2\text{C}=\text{CH}_2$, 2H) 1.93 (m, $\text{CH}_3(\text{CH}_2\text{CCH}_3\text{COOR})$, 2nH) 1.05 (s, CH_3 methyl 3nH), 0.85 (s, terminal methyl, 3H).

IR: $\nu(\text{cm}^{-1})$: 2850 (CH_3/CH_2 stretch), 1700 sharp ($\text{C}=\text{O}$ stretch), 1450 ($>\text{C}-\text{H}_2$ scissor deformation), 1100 ($\text{C}-\text{O}$ ester stretch), 800 ($\text{C}=\text{C}$ Hydrogen out-of-plane bends)

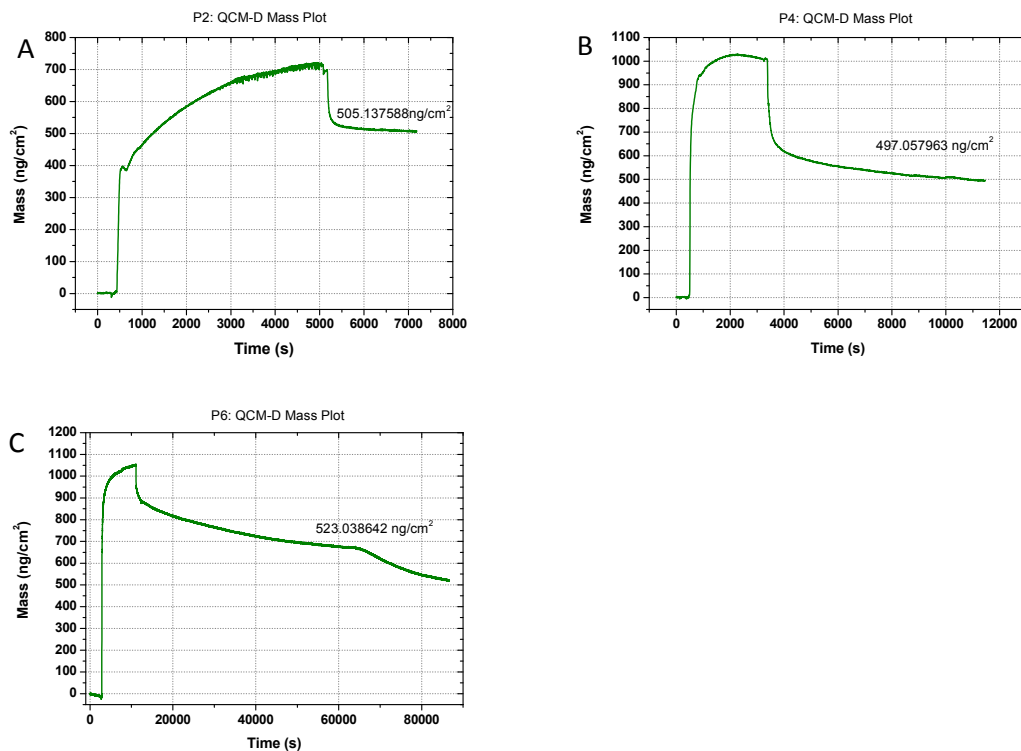
M_n (GPC) = 11 700 $\text{g}\cdot\text{mol}^{-1}$; M_w (GPC) = 15 900 $\text{g}\cdot\text{mol}^{-1}$; M_w/M_n = 1.36 ; Conversion (NMR) = 83%



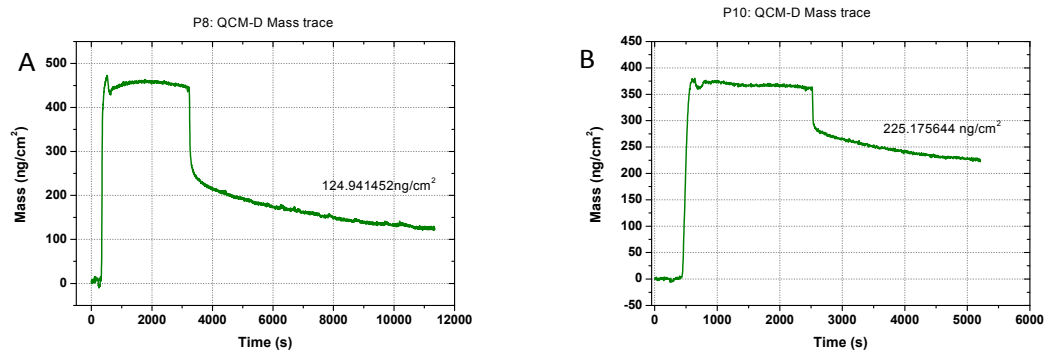
Supplementary info. S1. (A) and (B) QCM-D traces showing the change in frequency and dissipation over time as RAFT CTA 1 and 2 are passed over a gold surface. Graphs (C) and (D) show the Sauerbrey mass adsorption profile of each RAFT CTA respectively.



S2 Comparison of $M_n \sim 5000$ polymers: P1(A), P3(B), P5(C) and P9(D) mass adsorption to gold.



S3. Comparison of adsorbed large M_n DEG polymers 2(A), 4(B) and 6(C) on gold



S4. Comparison of adsorbed mass of PEG polymers P8(A) and 10(B).