Table S1. Kinetic constants, A, B, $K_1$, and $K_2$, for depolymerization at different reaction temperatures

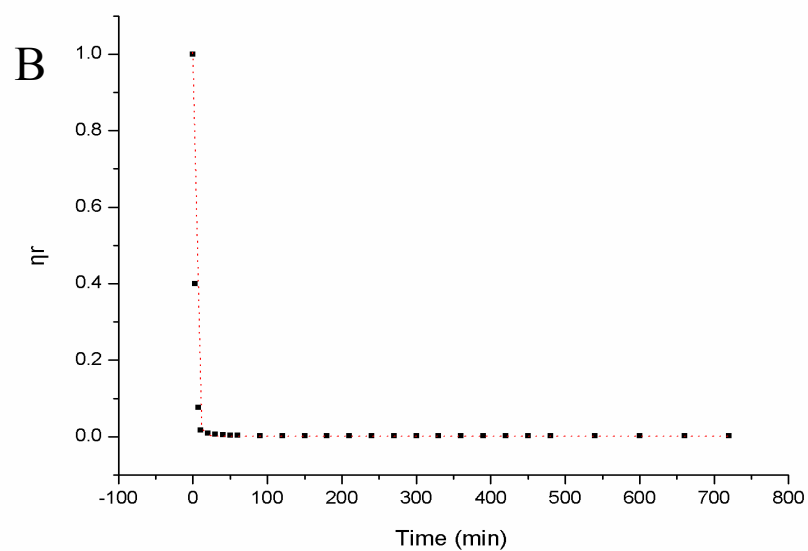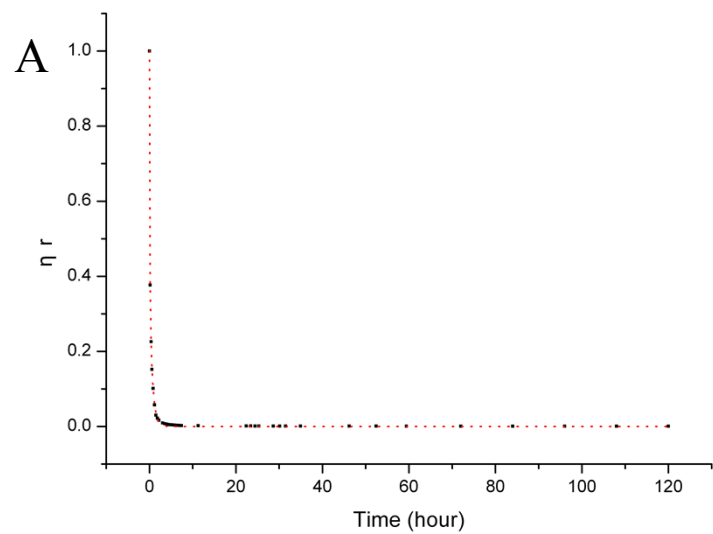| Reaction temperature (℃) | A | B | $K_1$ (min$^{-1}$) | $K_2$ (min$^{-1}$) |
|---|---|---|---|---|
| 30 | 0.59 | 0.41 | 0.22 | 0.027 |
| 50 | 0.99 | 0.01 | 0.44 | 0.0027 |
| 70 | 0.99 | 0.01 | 0.53 | 0.0042 |

Fig. S1. Normalized apparent viscosity ($\eta_r = \eta_t / \eta_0$) as a function of reaction time at 30℃ (A) and 50℃ (B).
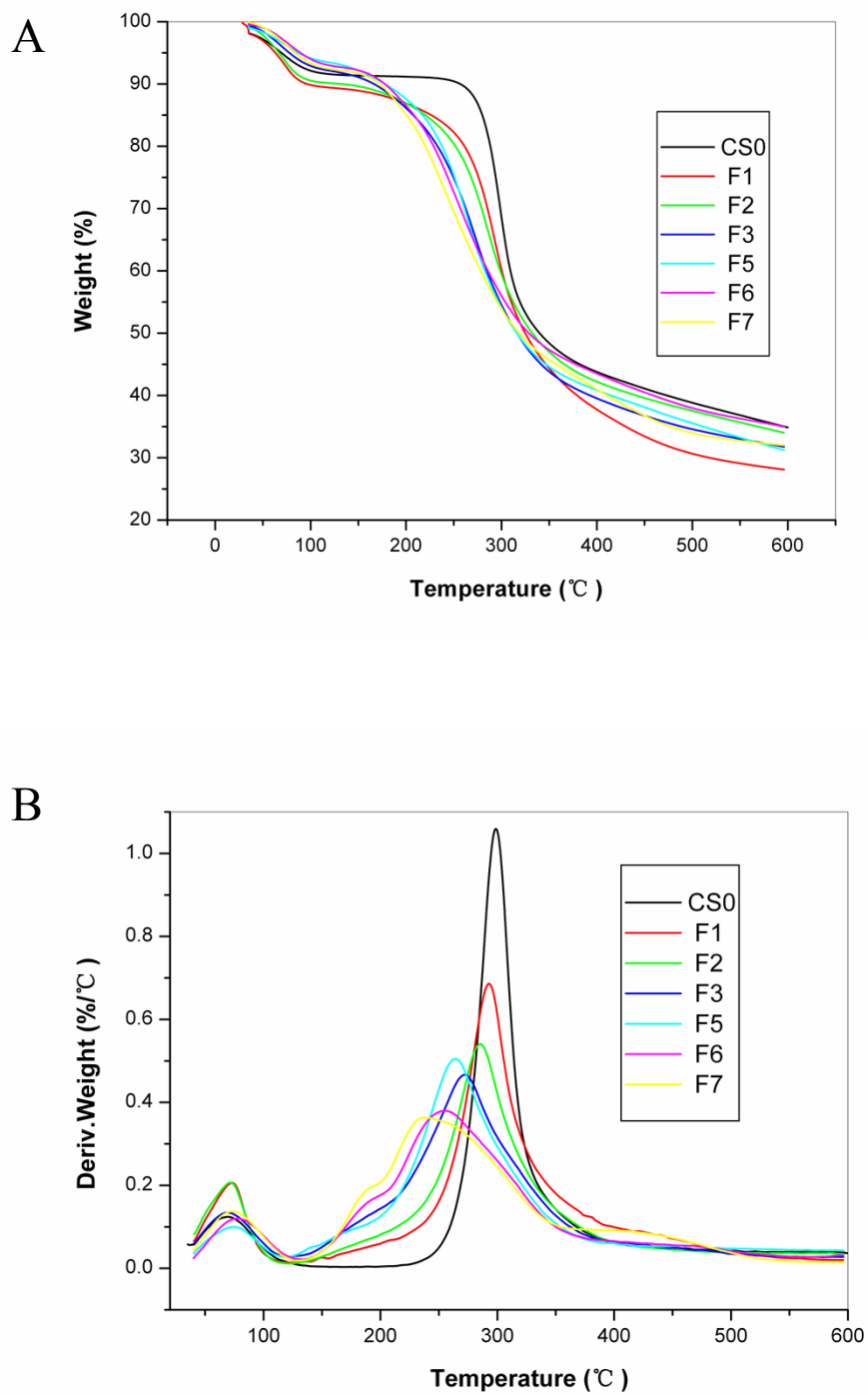
Fig. S2. TG (A) and DTG (B) curves for CS0 and prepared products.