

Supporting Information

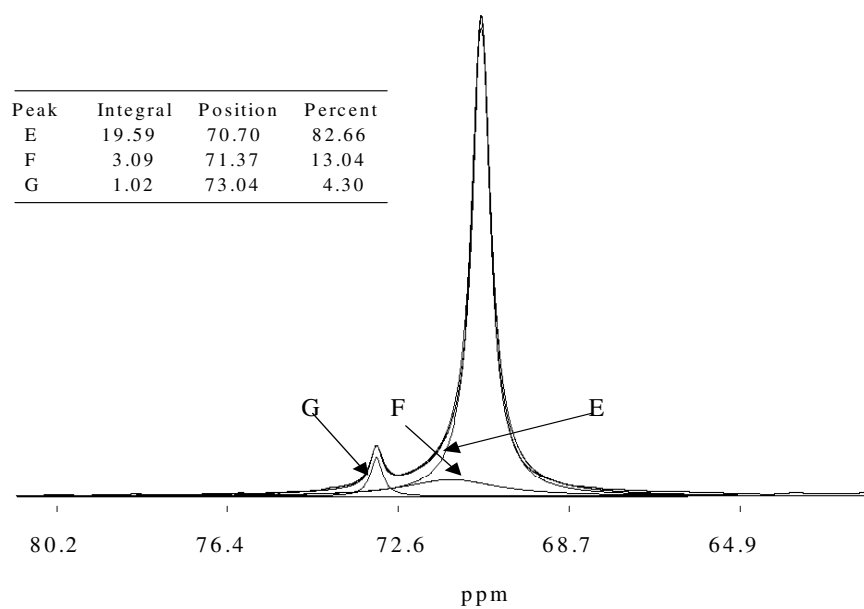
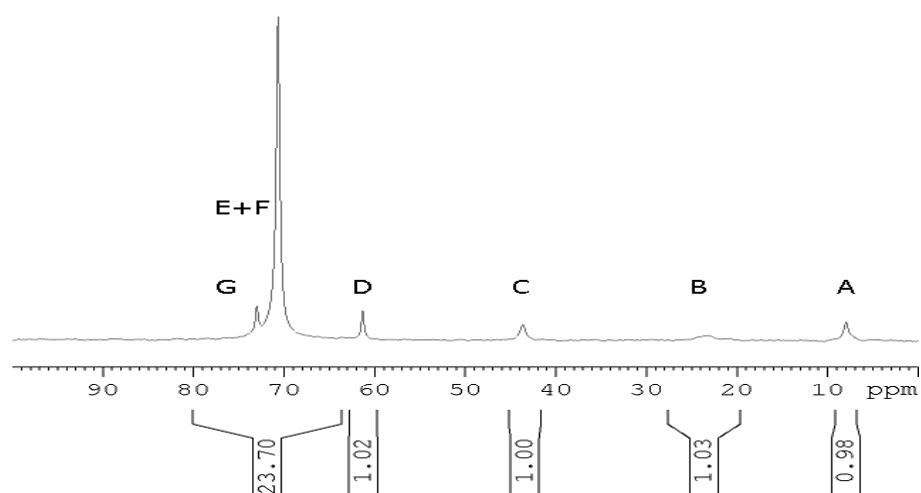
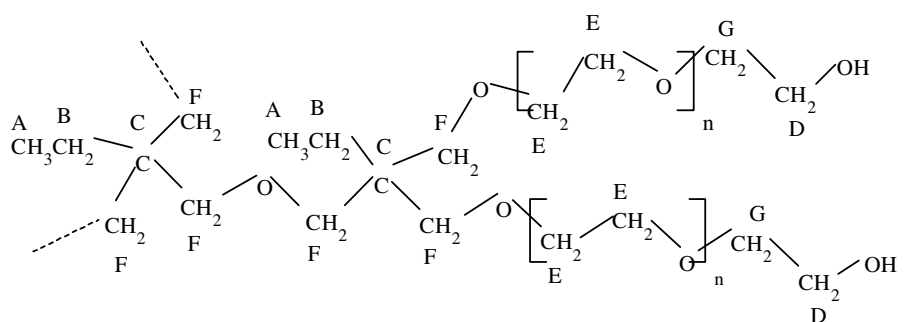


Figure s1. Quantitative MAS solid-state ^{13}C NMR spectrum of the multi-arm hyperbranched polyether **3**. Due to the overlap of the signals in the low field, a curve-fitting procedure was adopted and the assignment and ratio of each peak were listed. In terms of the intensities of peaks E, D and C, the molar ratio of ethylene glycol units in the arms to 3-ethyl-3-oxetanemethanol units in the hyperbranched core is found to be 10.8 ($(\text{E}/2+\text{D})/\text{C} = 10.8$). Since the average number of repeat units of PEG arms determined by the intensities of peaks E and D is 10.6 ($\text{E}/2\text{D}+\text{D} = 10.6$), the maximum extension length of each linear arm is approximately 3.8 nm ($0.36 \times 10.6 = 3.8$ nm), provided that all-trans conformation is adopted.

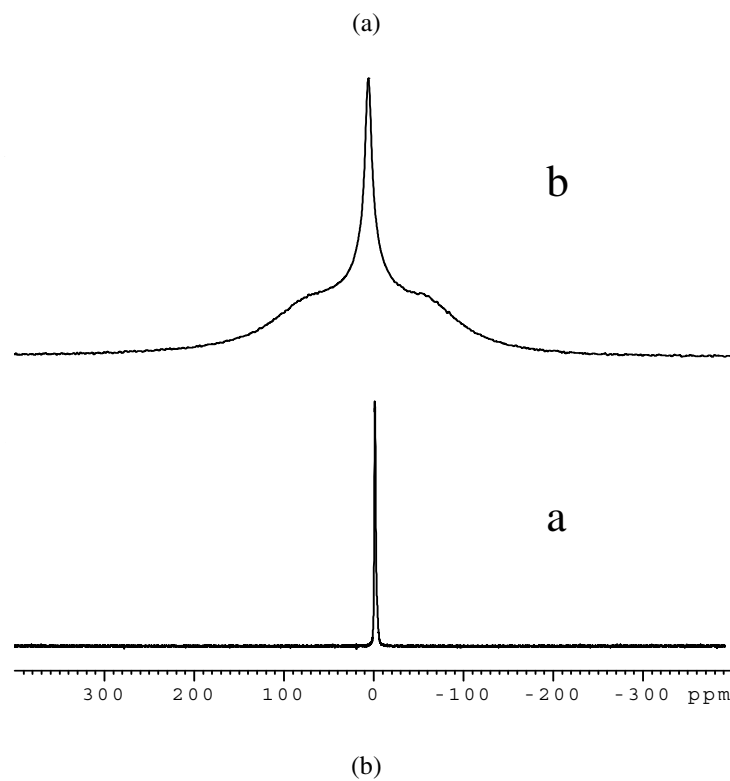
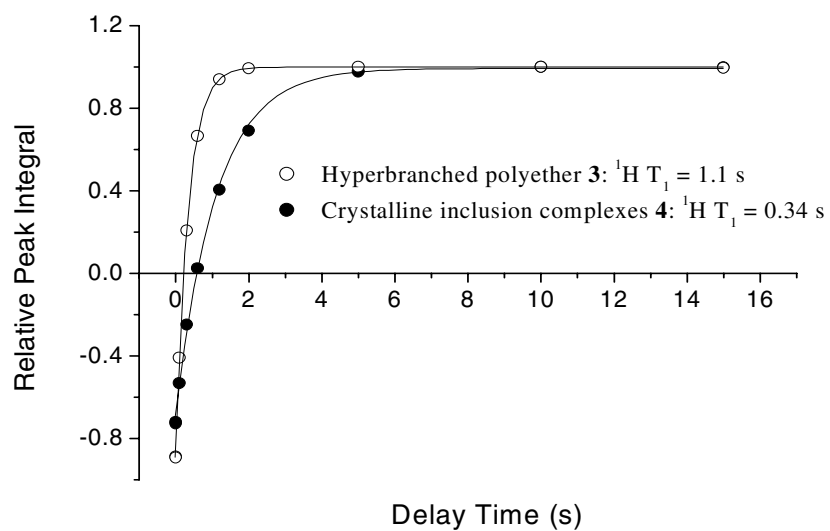


Figure s2. ^1H -NMR spin lattice (T_1) relaxation measurements for multi-arm hyperbranched polyether **3** and its correspondent crystalline inclusion complexes **4**: (a) the relationship of relative peak integral with delay time; (b) wide-line ^1H -NMR spectra, **a**: multi-arm hyperbranched polyether **3**, **b**: crystalline inclusion complexes **4**.

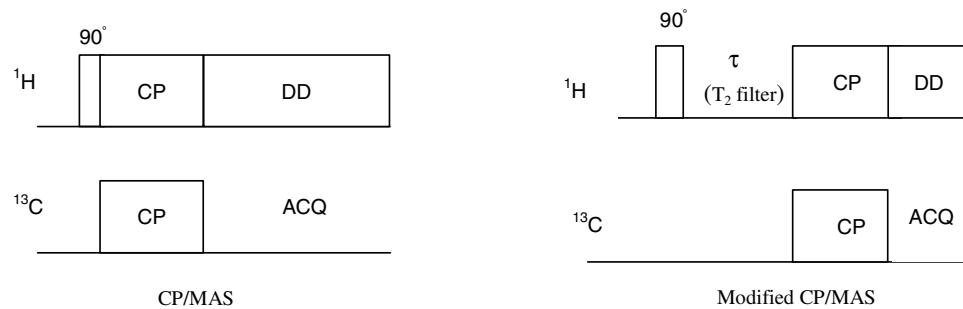


Figure s3. The schematic pulse sequences for the routine CP/MAS and the modified CP/MAS with a T₂ filter.

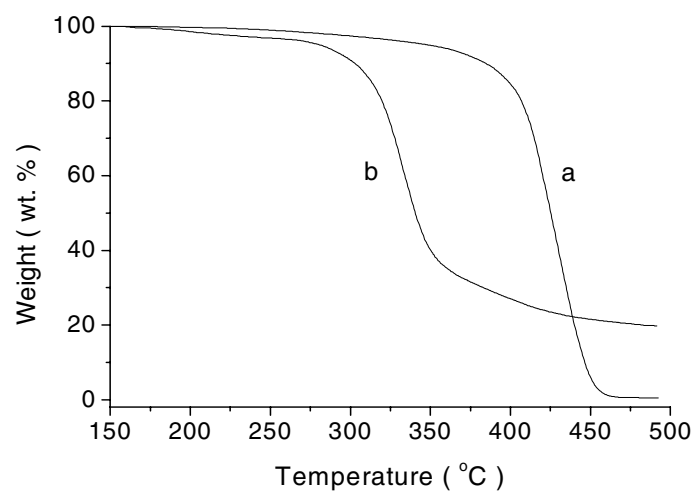


Figure s4. TGA thermograms of (a) multi-arm hyperbranched polyether **3** and (b) crystalline inclusion complexes **4**.

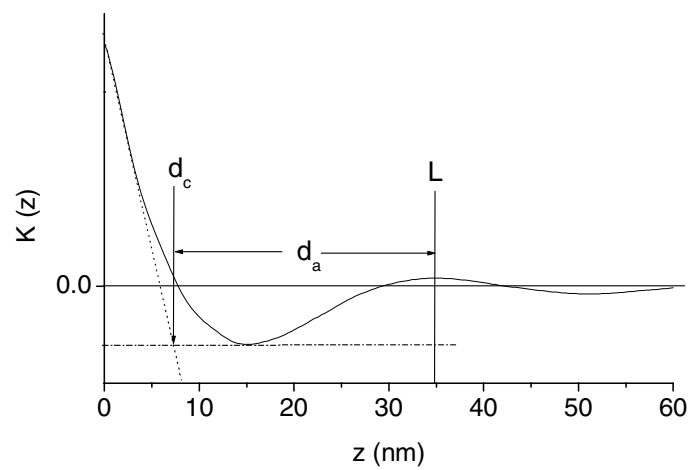


Figure s5. Curve of one-dimensional electron-density correlation function for the crystalline inclusion complexes **4**. **L**, **d_c**, and **d_a** are the length of long period, crystalline region and amorphous region of lamellar crystals, respectively.