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Supplementary Material

Synthesis of Poly(2-methyl-2-oxazoline) Star Polymers with a β-cyclodextrin Core

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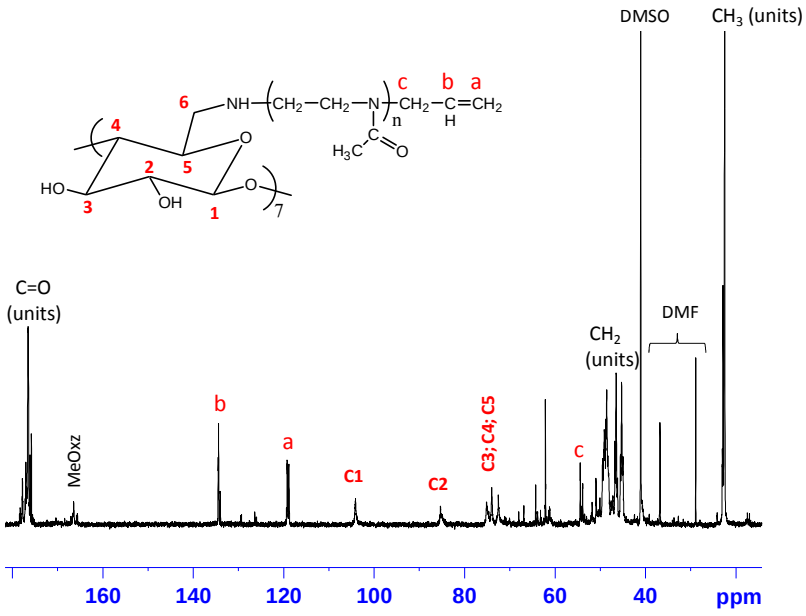

Figure S1: ^{13}C NMR of the star PMeOxz (before dialysis) in D_2O.

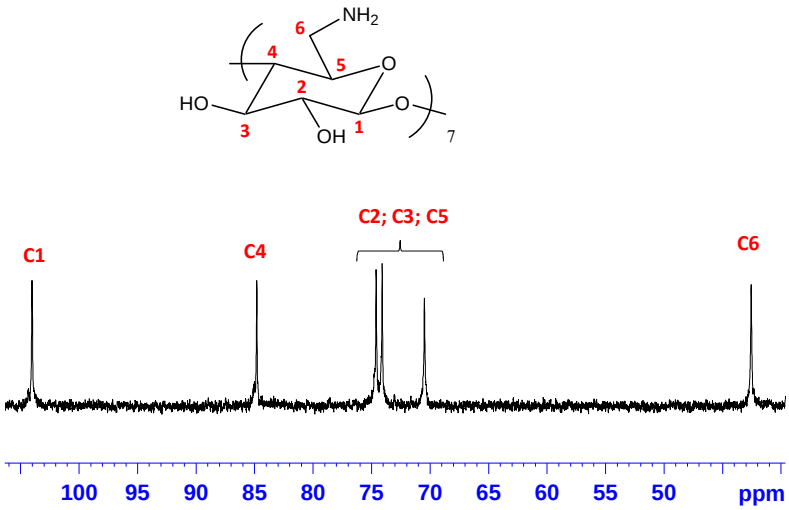

Figure S2: ^{13}C NMR of heptakis(6-deoxy-6-amino)β-CD in D_2O

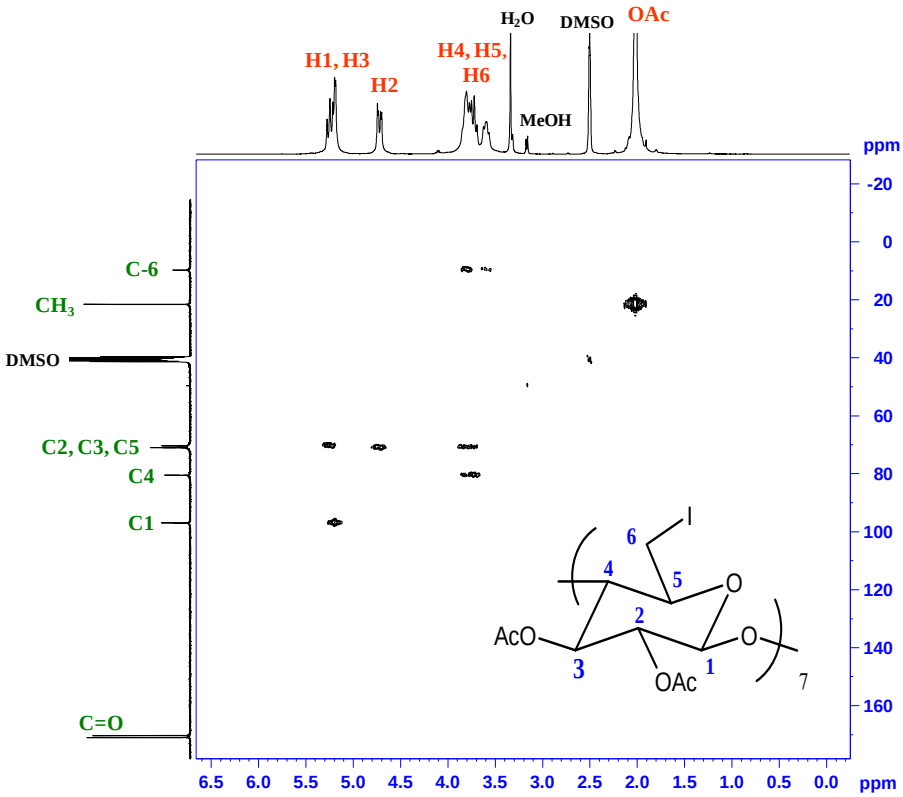

Figure S3: HMQC NMR spectrum of the I-OAc-β-CD in DMSO-d6

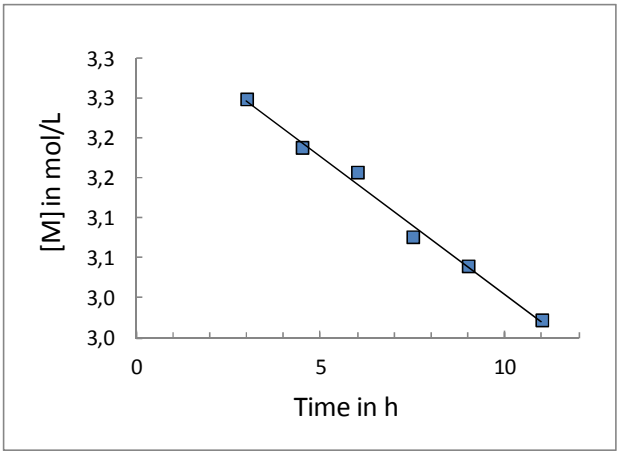

Figure S4: Time-[M] curve of the MeOxz polymerization initiated by I-OAc-β-CD at 80°C in acetonitrile; [MeOxz]=3.28 mol/L, [I-OAc-β-CD]=9.20×10^{-3} mol/L.

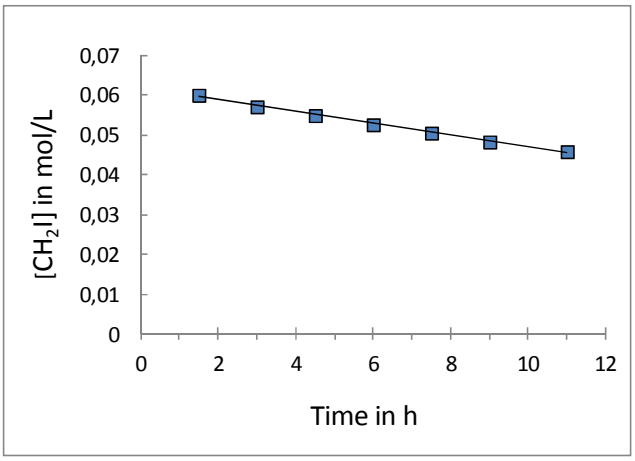

Figure S5: Time-[CH_2I] curve of the MeOxz polymerization initiated by I-OAc-β-CD at 80°C in acetonitrile; [MeOxz]=3.28 mol/L, [I-OAc-β-CD]=9.20×10^{-3} mol/L.

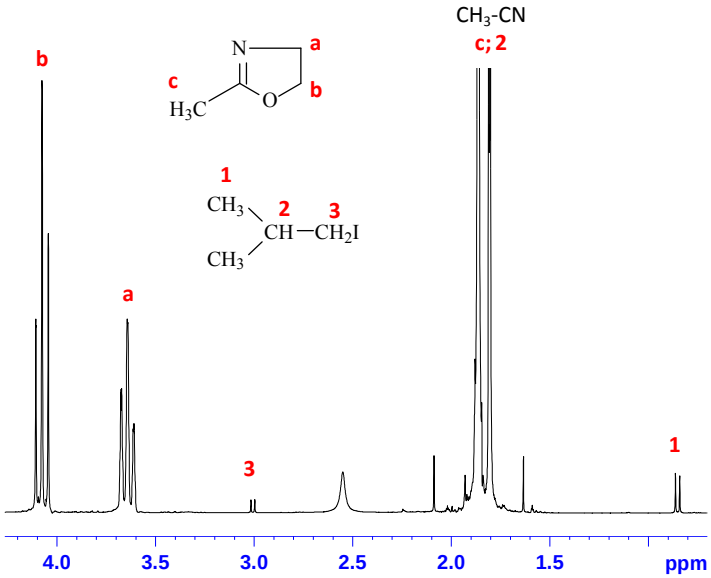

Figure S6: ^{1}H NMR of a cryodistillate in $CDCl_3$; polymerization initiated by RI in acetonitrile at 80°C: [MeOxz]=3.28 mol/L, [RI]= 6.44 $\times 10^{-2}$ mol/L.

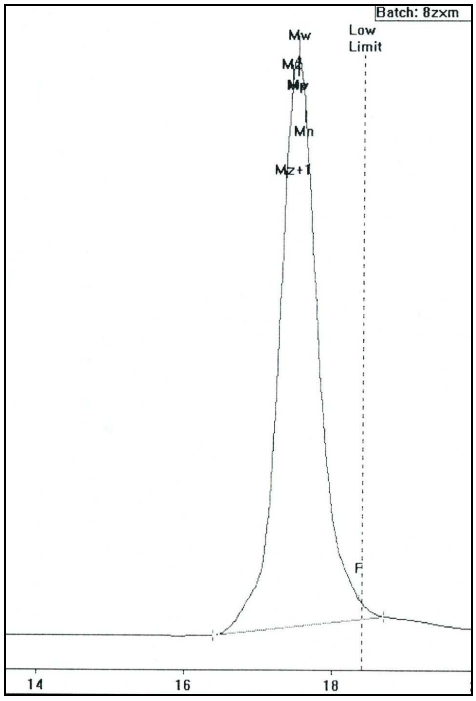

Figure S7: SEC chromatogram of the S2 star polymer

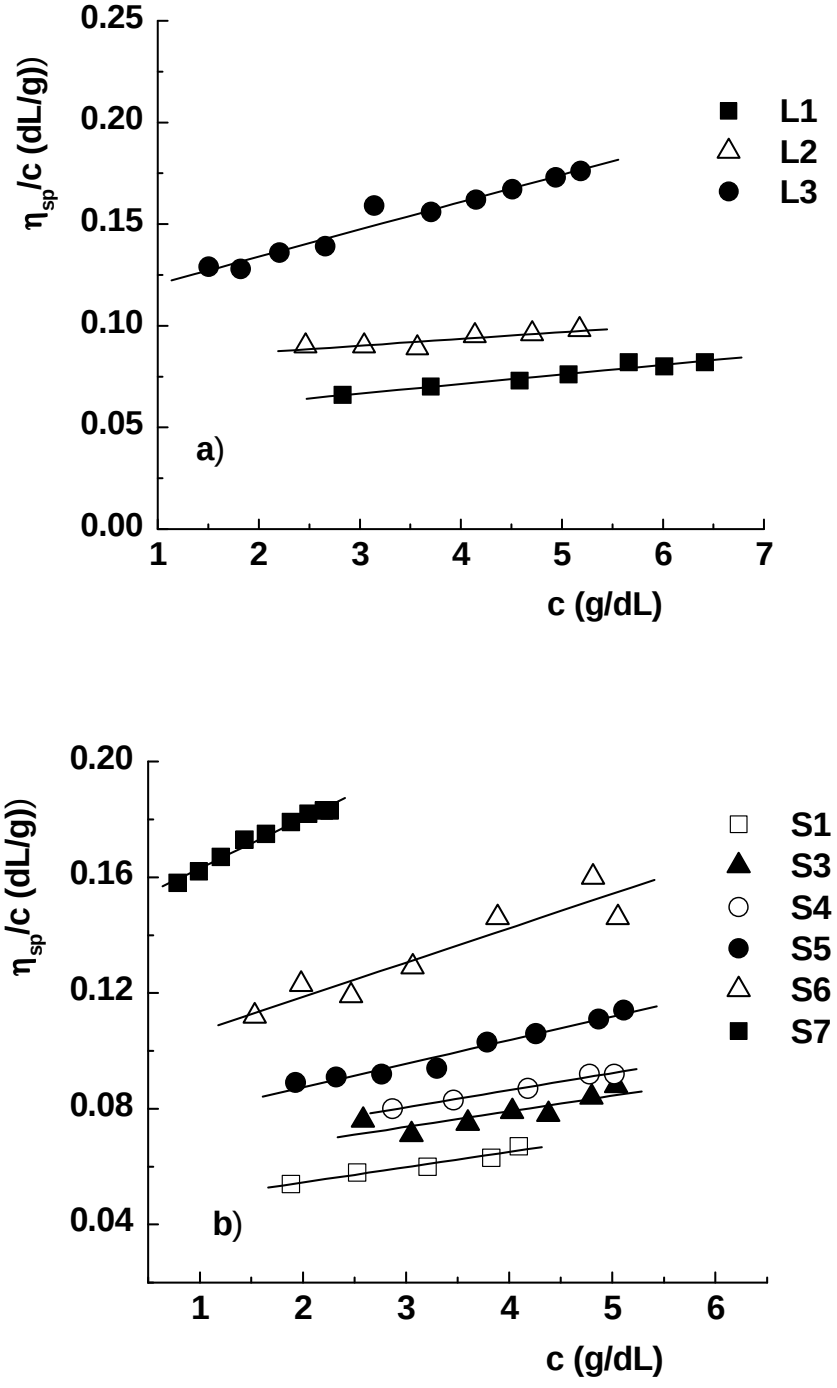

Figure S8. Variation of η_{sp}/c as a function of polymer concentration for a) linear and b) star PMeOxz in chloroform at 25°C.

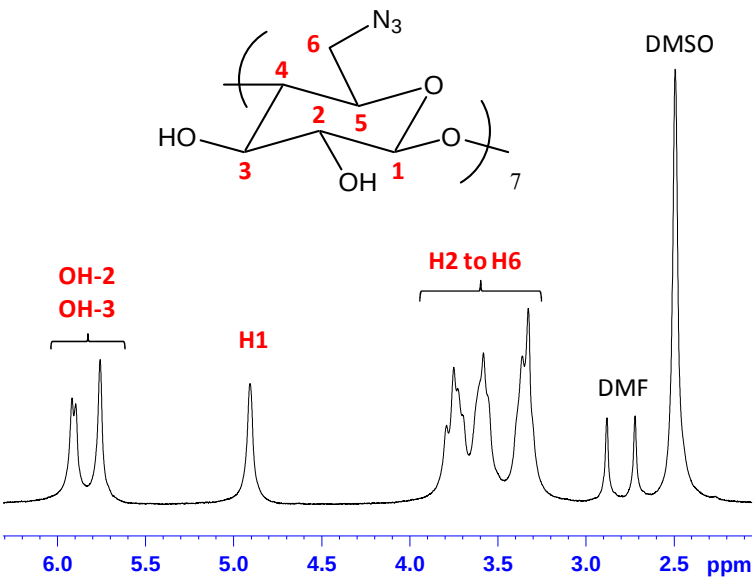

Figure S9: ^{1}H NMR of heptakis(6-deoxy-6-azido)β-CD in DMSO-d6

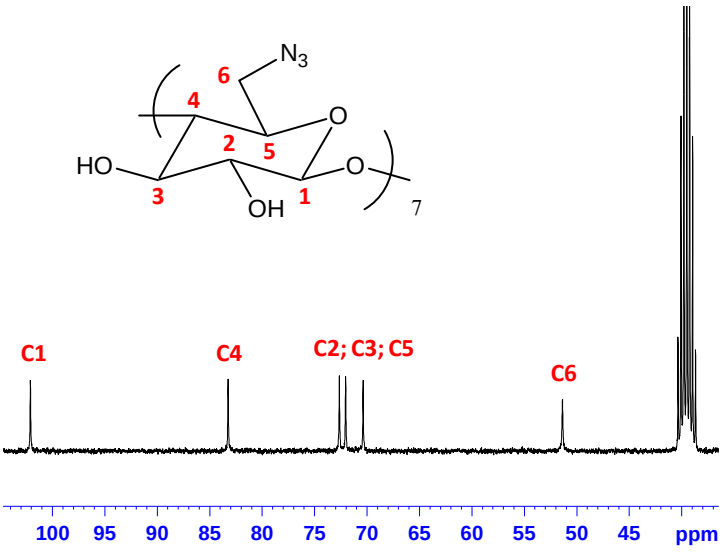

Figure S10: ^{13}C NMR of heptakis(6-deoxy-6-azido)β-CD in DMSO-d6

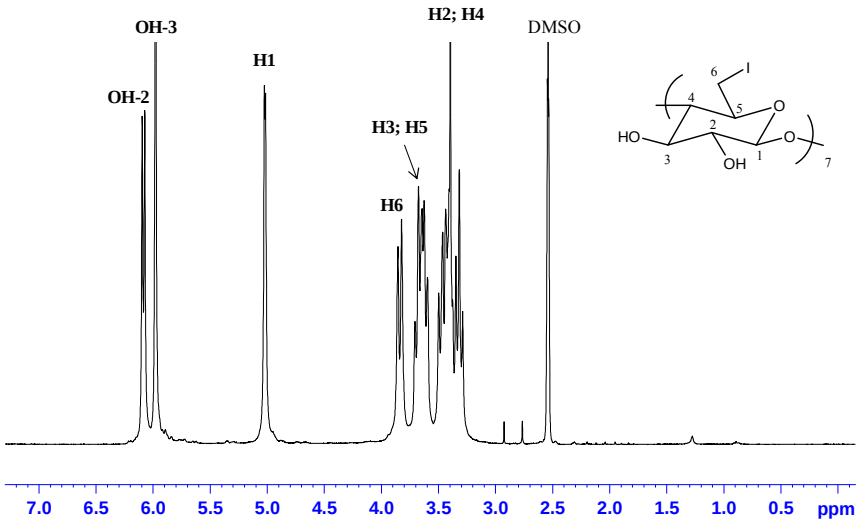

Figure S11: ^{1}H NMR of heptakis(6-deoxy-6-iodo)β-CD in DMSO-d6

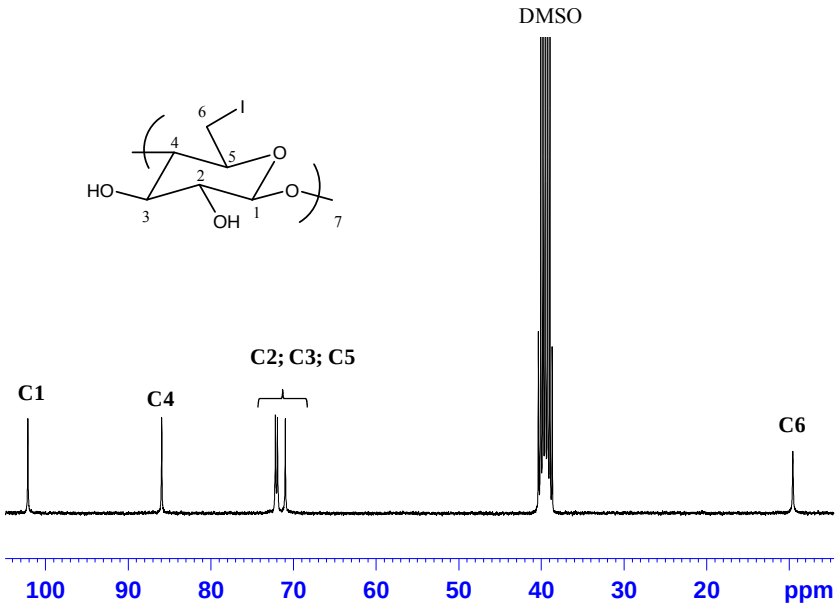

Figure S12: ^{13}C NMR of heptakis(6-deoxy-6-iodo)β-CD in DMSO-d6

Sample	M_n (g/mol)	PDI
S1	1380	1.07
S2	1450	1.09
S4	4250	1.03
S5	4560	1.03
S6	5330	1.05
S7	8270	1.19

Size exclusion chromatography was performed in chloroform on a PL-EMD 950 Evaporative Mass Detector instrument (column PLgel 5µm). Calibration was done using polystyrene (PS) with molecular weights 3150000-580 Da, as standards.

Table S1: Molar mass and polydispersity index of the star polymers determined by size exclusion chromatography