

Supporting Information

Synthesis of Multifunctional Miktoarm Star Polymers via RGD peptide-based RAFT agent

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Table S1 Summary of MAS polymers synthesized with different arm ratio

Entry	Feed ratio		Yield ^b (%)	M_n^b (KDa)	D^b
	a:b:c	Arm ratio ^a			
S1-111	1:1:1	2.8:5.3:1.0	78	79.8	1.37
S1-121	1:2:1	1.7:4.4:1.0	83	80.3	1.54
S1-131	1:3:1	3.6:22:1.0	83	86.6	1.61
S1-211	2:1:1	3.3:3.2:1.0	75	69.0	1.40
S1-311	3:1:1	3.1:2.3:1.0	75	77.1	1.39
S1-221	2:2:1	3.7:5.8:1.0	83	124.6	1.52

^a Determined by ¹H NMR spectroscopy. ^b Obtained from GPC.

Table S2 DLS and Zeta potential data of quaternized MAS polymers. (**QS1-111**)

represent quaternized S1-111)

	QS1- 111	QS1- 211	QS1- 311	QS-2
Size (nm)	88.2	88.3	81.4	66.4
PDI	0.267	0.414	0.597	0.241
The zeta potentials (mV)	+60.5	+69.8	+91.2	+64.7

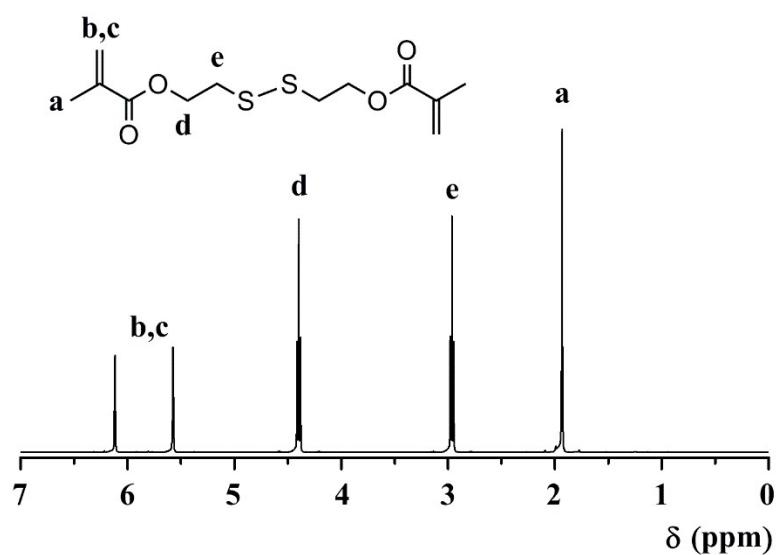


Fig. S1 ^1H NMR spectrum of DSDMA in CDCl_3 .

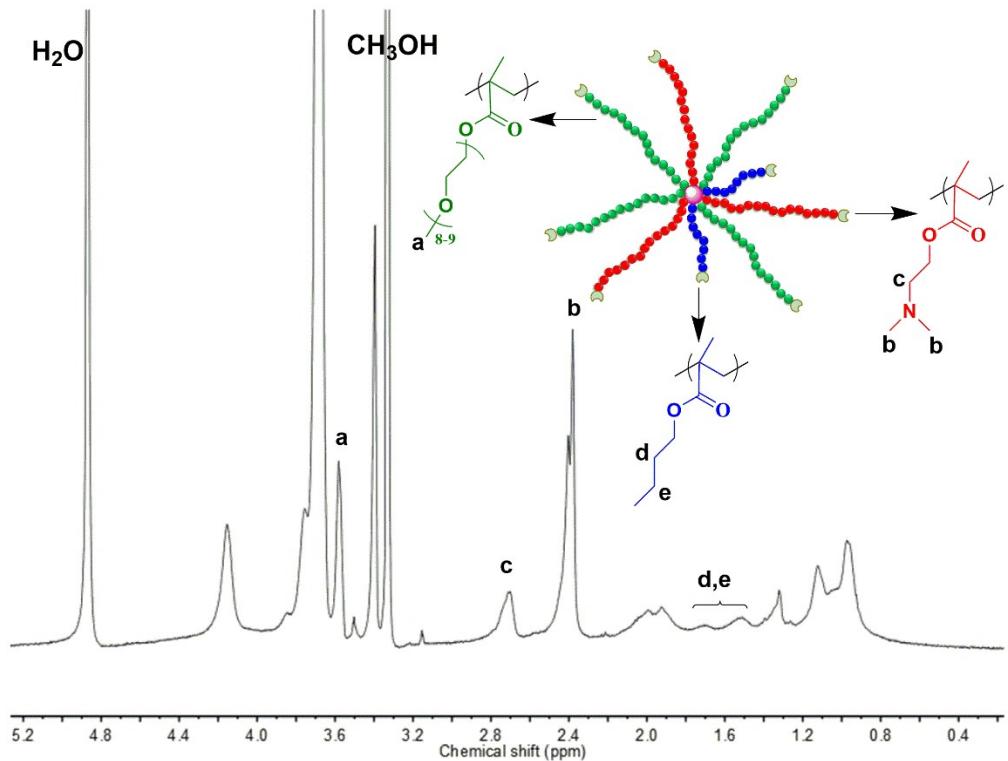


Fig. S2 ^1H NMR spectrum of S-2 and QS-2 in CD_3OD .

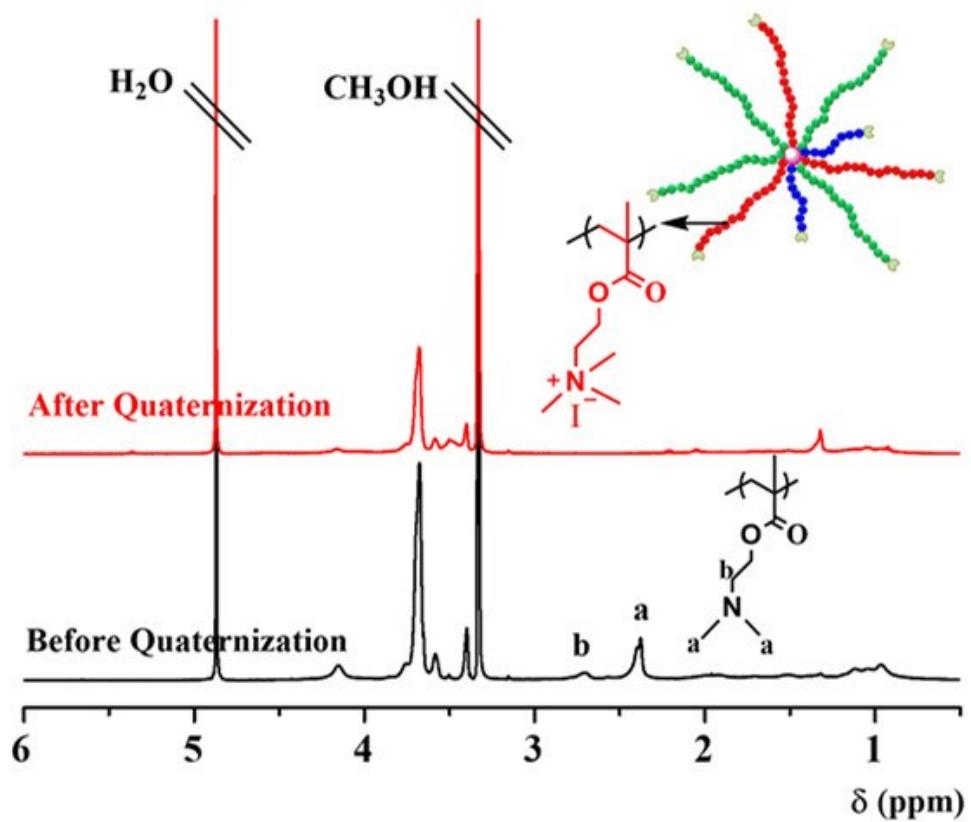


Fig. S3 ^1H NMR spectrum of S-2 and QS-2 in CD_3OD .

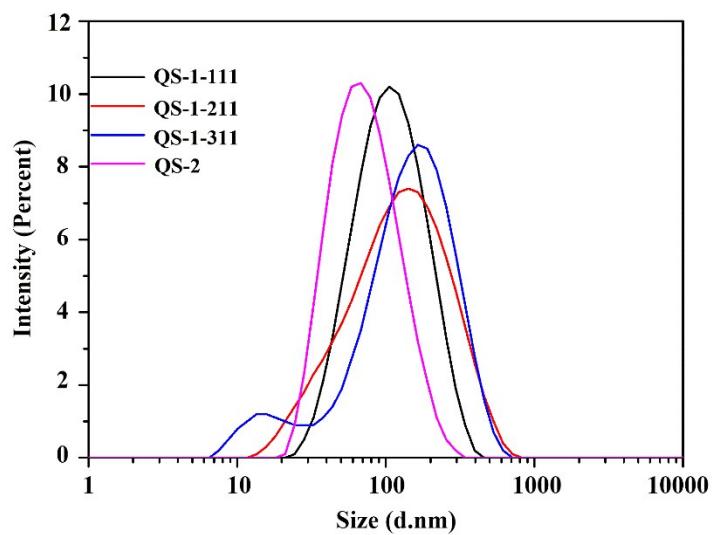
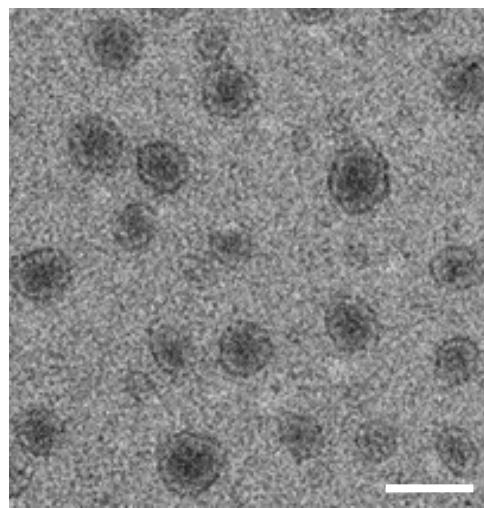


Fig. S4 DLS results for quaternized MAS polymers in water at 25 °C.

Fig. S5 TEM images for QS-2. (Scale bar: 200 nm)



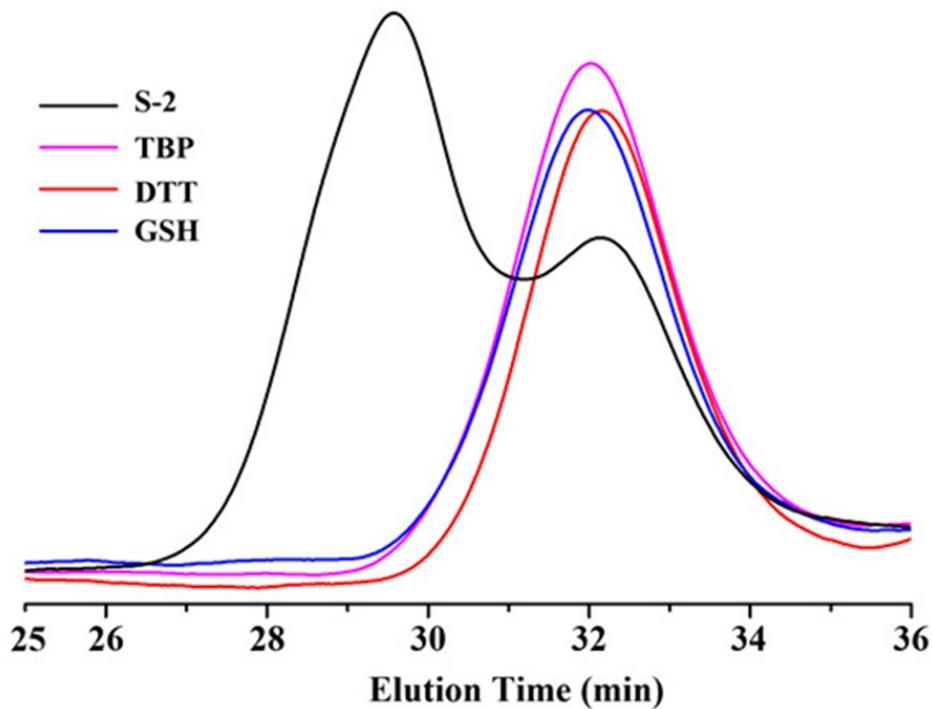


Fig. S6 GPC traces for MAS polymer S-2 with different reductant.

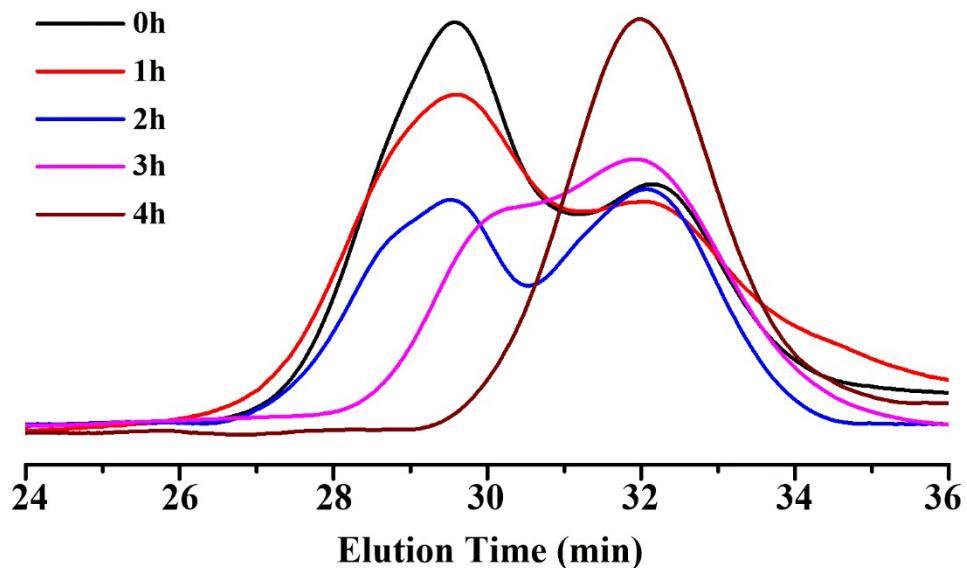


Fig. S7 GPC traces for MAS polymer S-2 with TBP under different degradation times.