

Electronic Supplementary Information

Inconvertible *tert*-Butylthiacalix[4]arene-Core-Star Polystyrene Conformers

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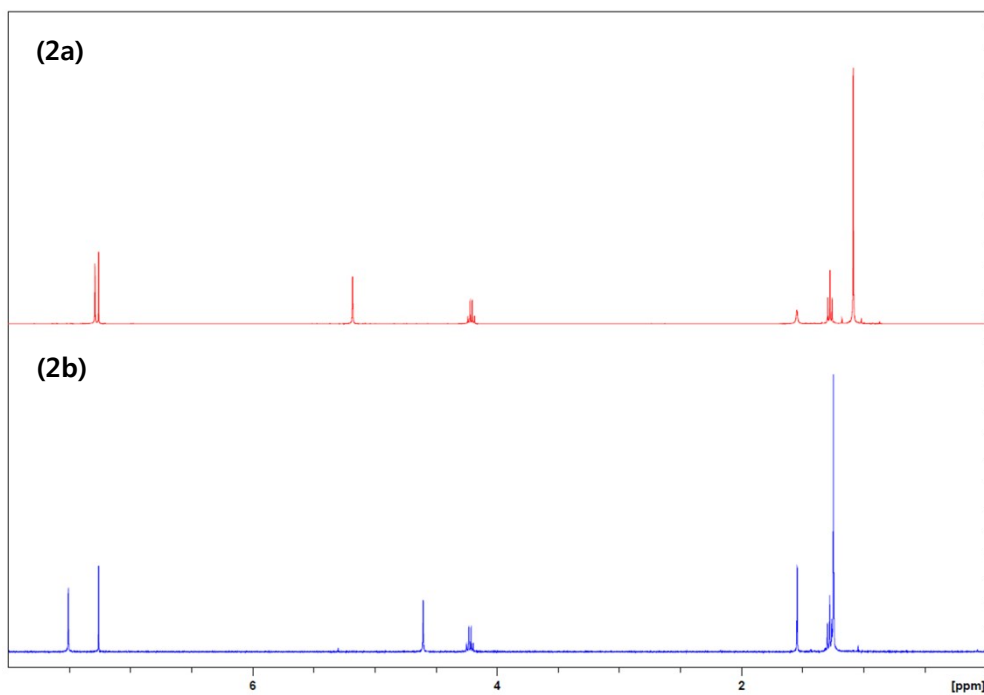


Fig. S1. ^1H NMR spectra of **2a** and **2b** (CDCl_3 , 28 $^\circ\text{C}$)

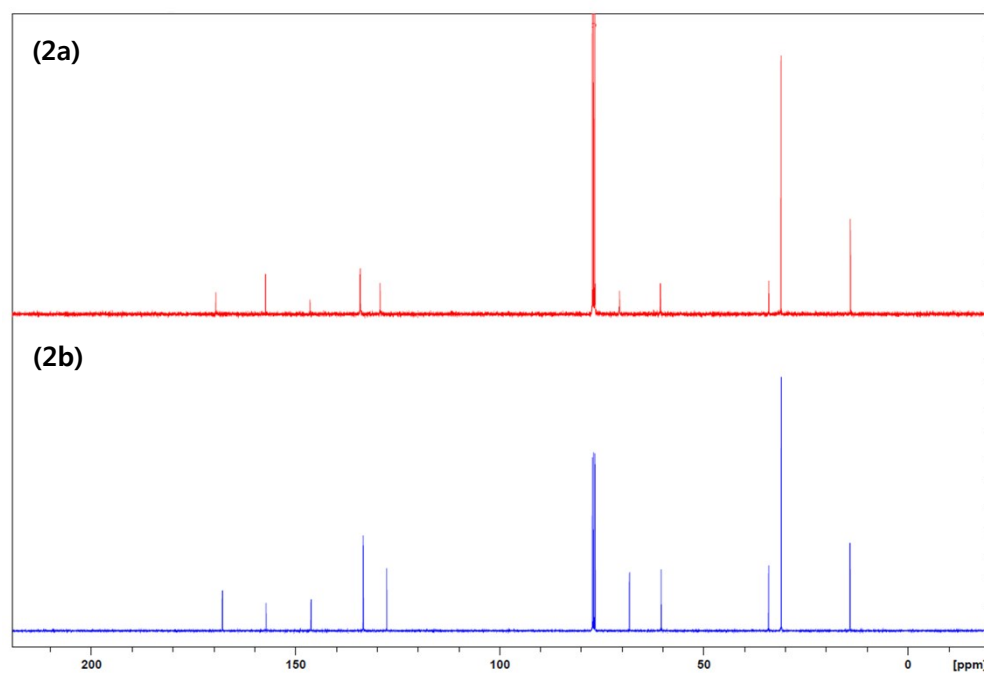


Fig. S2. ^{13}C NMR spectra of **2a** and **2b** (CDCl_3 , 28 $^\circ\text{C}$)

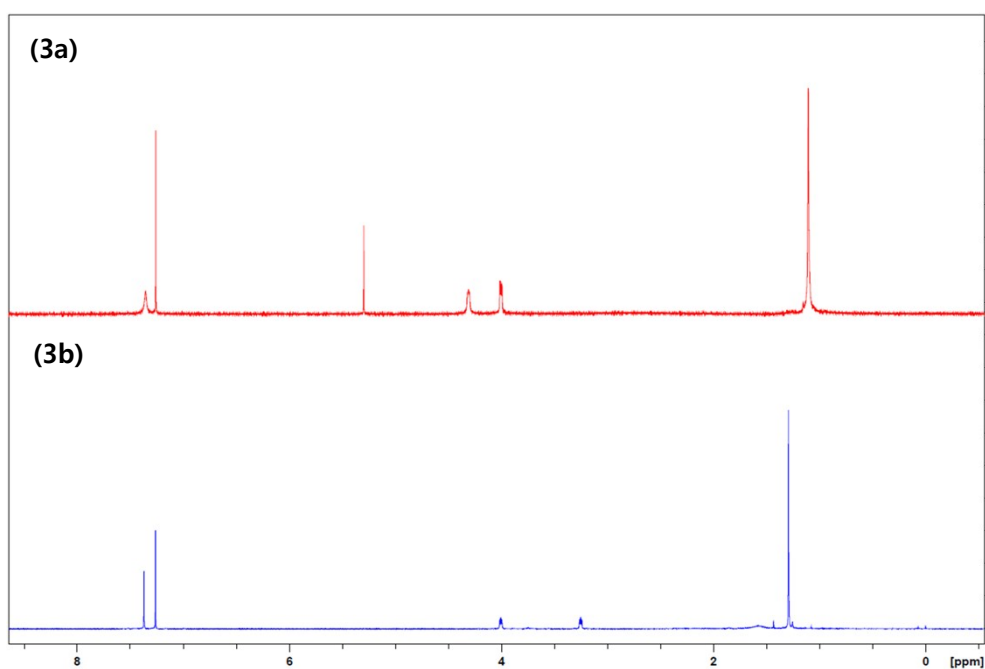


Fig. S3. ^1H NMR spectra of **3a** and **3b** (CDCl_3 , 28 $^\circ\text{C}$)

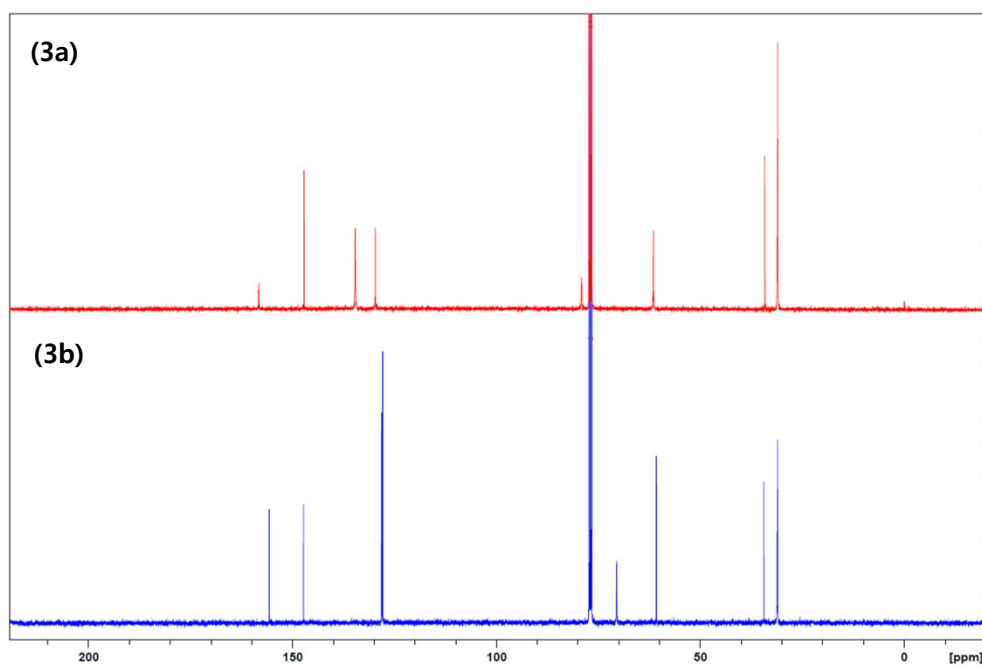


Fig. S4. ^{13}C NMR spectra of **3a** and **3b** (CDCl_3 , 28 $^\circ\text{C}$)

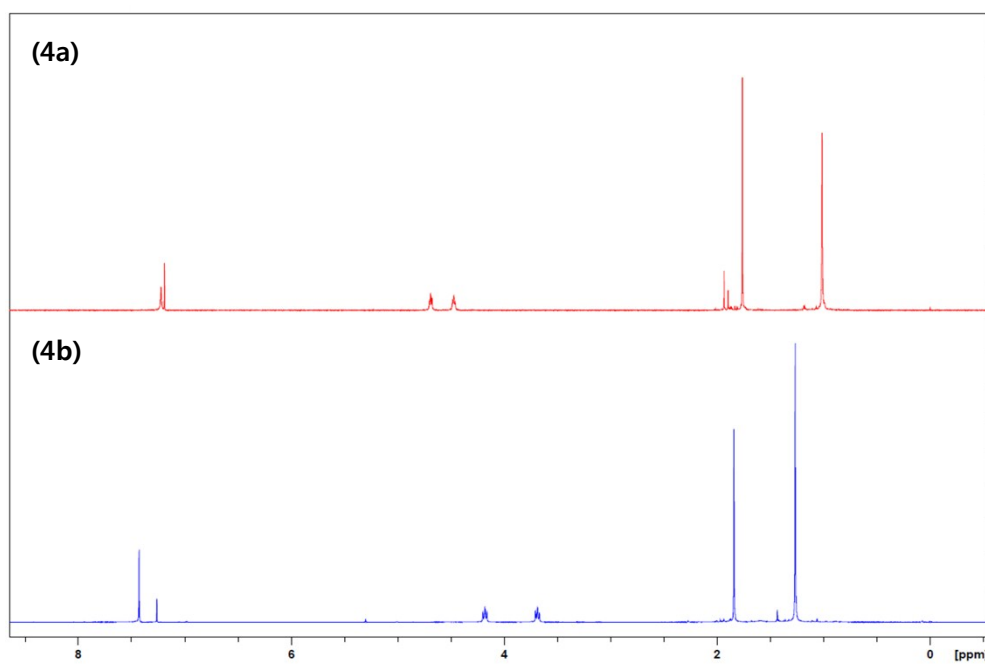


Fig. S5. ^1H NMR spectra of **4a** and **4b** (CDCl_3 , 28 $^\circ\text{C}$)

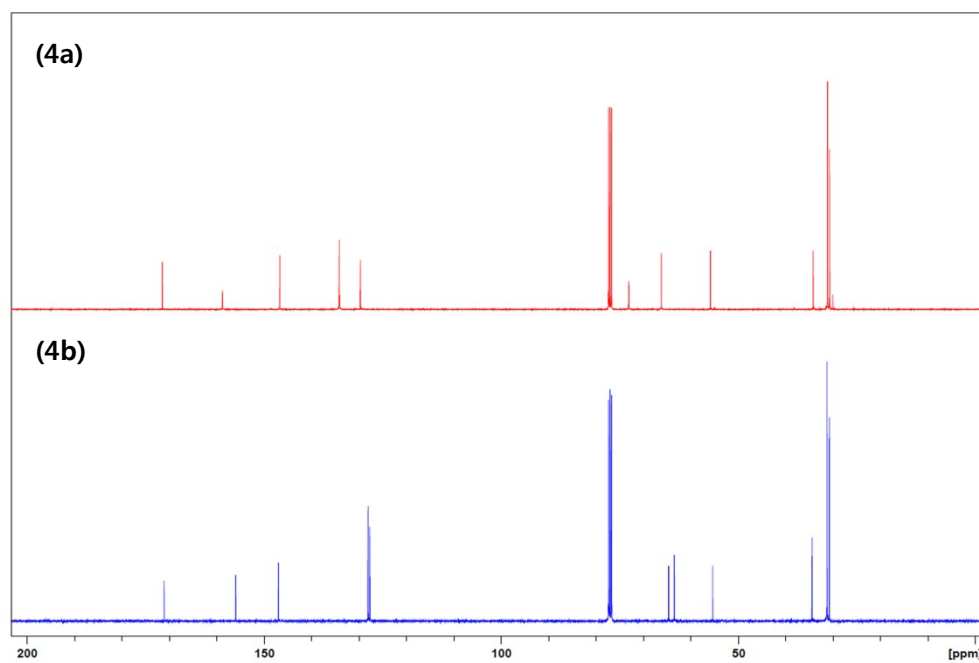


Fig. S6. ^{13}C NMR spectra of **4a** and **4b** (CDCl_3 , 28 $^\circ\text{C}$)

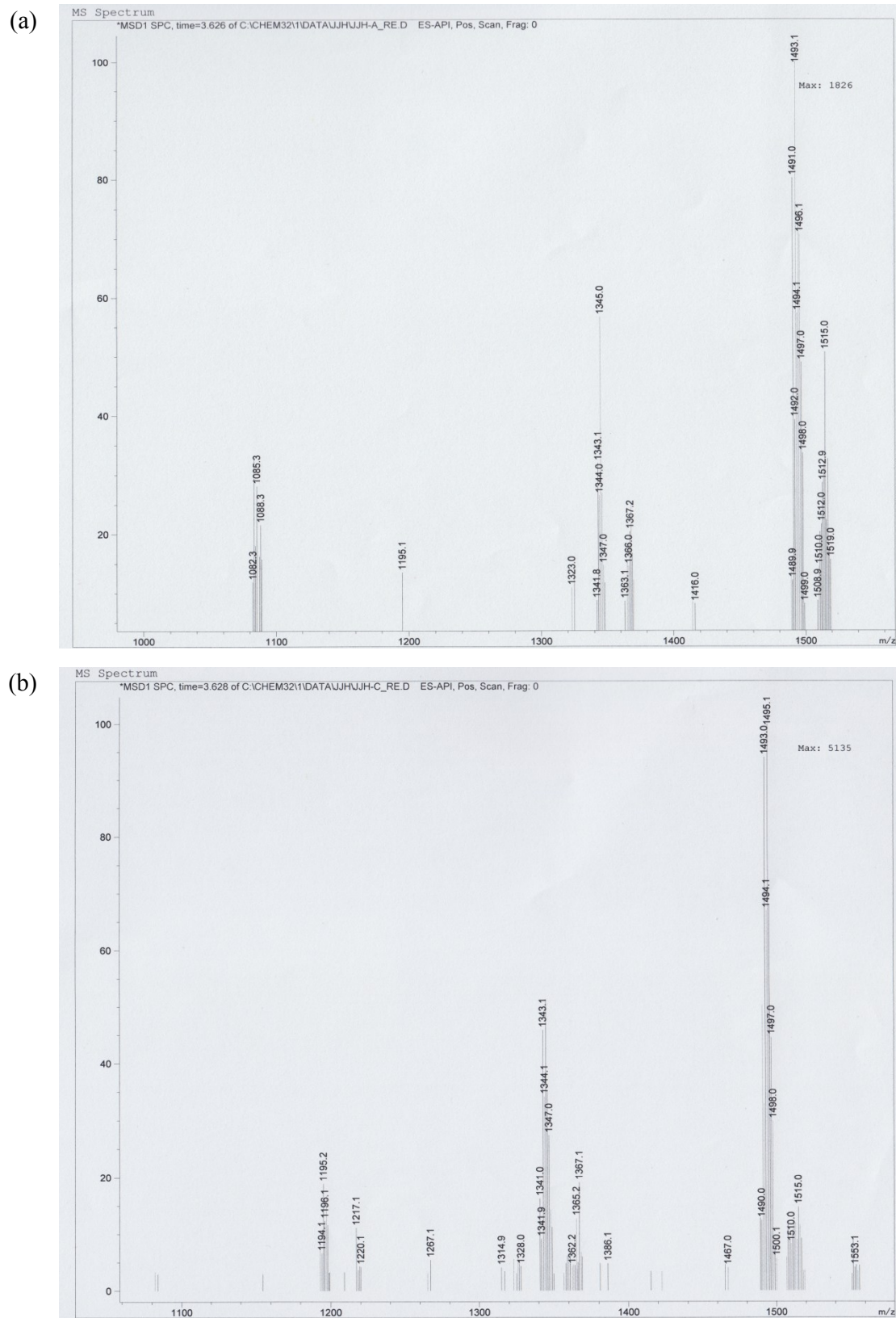


Fig. S7. ESI-MS spectra of (a) **4a** and (b) **4b**

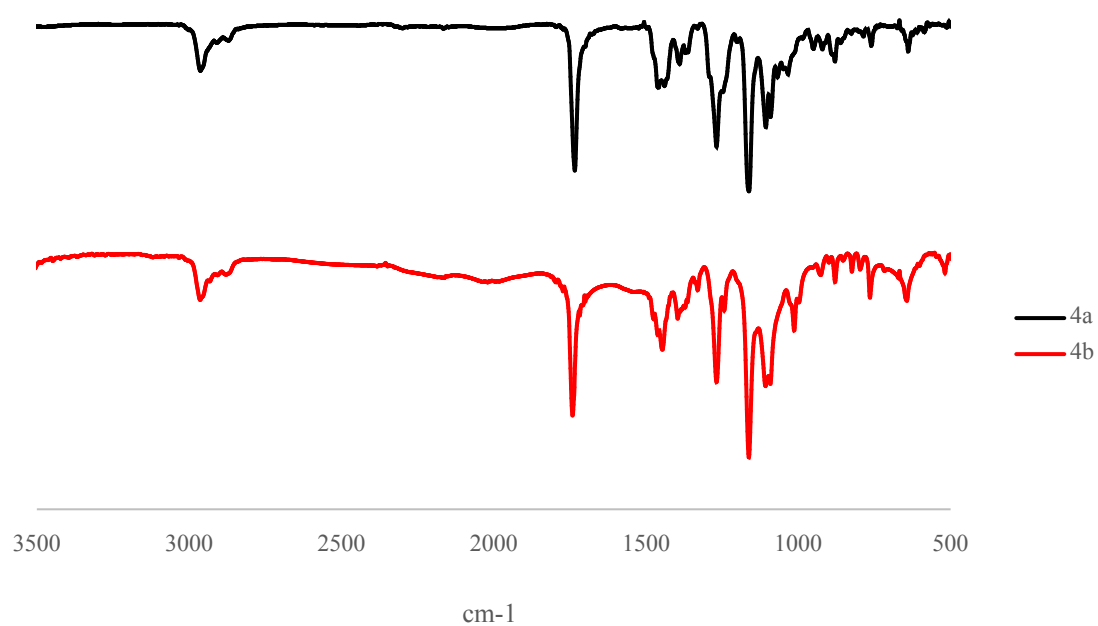


Fig. S8. IR spectra of (a) **4a** and (b) **4b**

Table S1. MWs of star and arm polymers and determination of functionalities

	Star polymer		Arm polymer ^{a)}	$f(\text{calcd})^{\text{b)}}$
	$M_{n, \text{rel}}$	MW_{NMR}	$M_{n, \text{rel}}$	
5a	7422	8620	1960	3.94
5b	7437	8535	2001	3.82

a) hydrolysis of the ester groups under basic conditions.

b) $f = [MW_{\text{NMR}}(\text{Star}) - 897(MW(\text{core}, \mathbf{3}))] / M_{n, \text{rel}}(\text{Arm})$

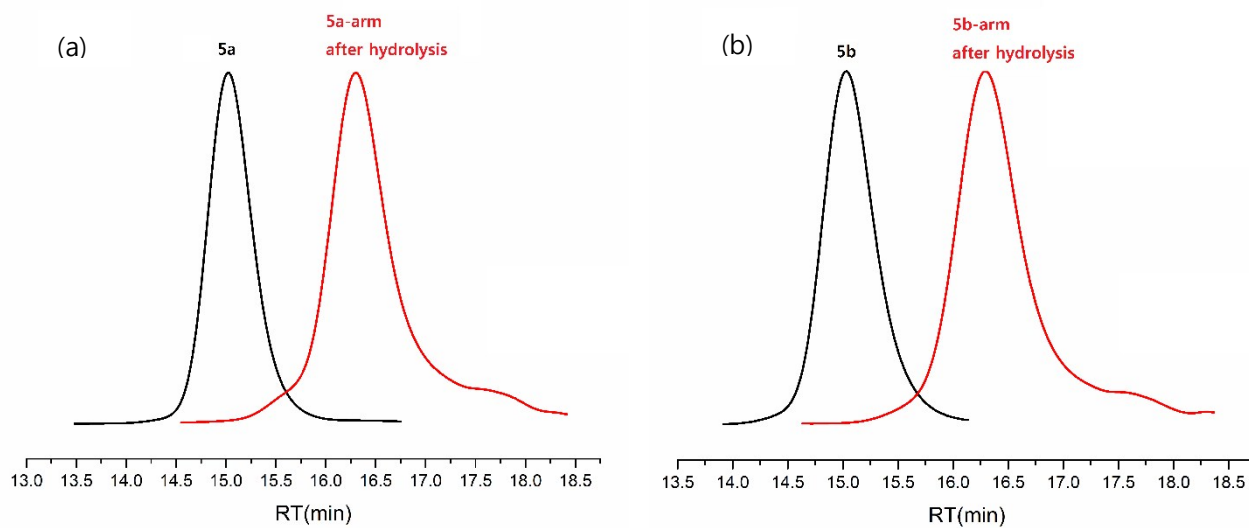


Fig. S9. SEC traces of before and after hydrolysis of the ester groups of star polymers :

(a) **5a** and (b) **5b**

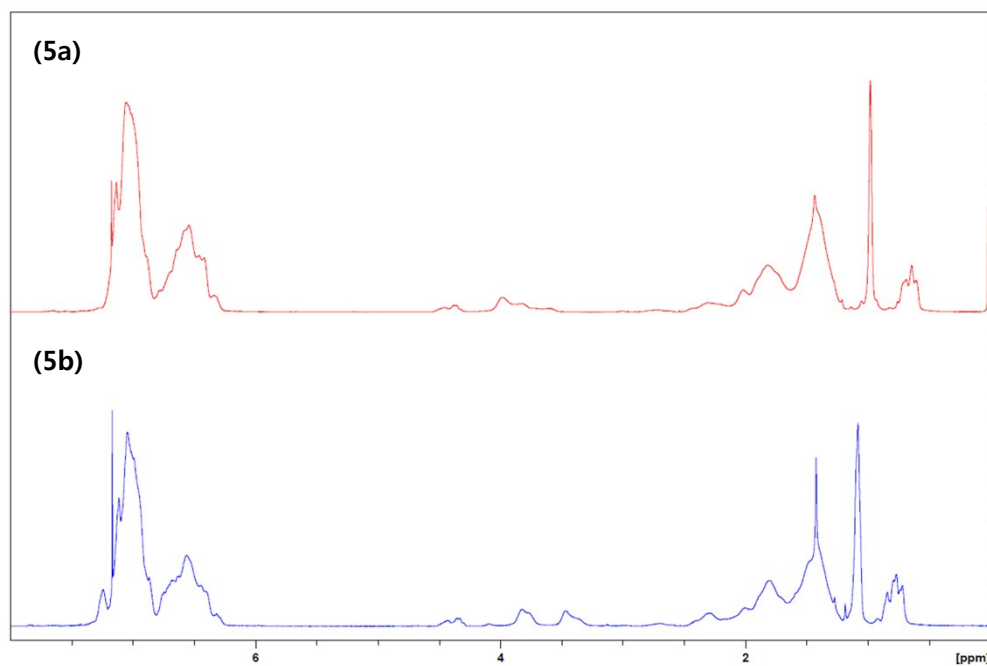


Fig. S10. ^1H NMR spectra of **5a** and **5b** (CDCl_3 , 28 $^\circ\text{C}$)

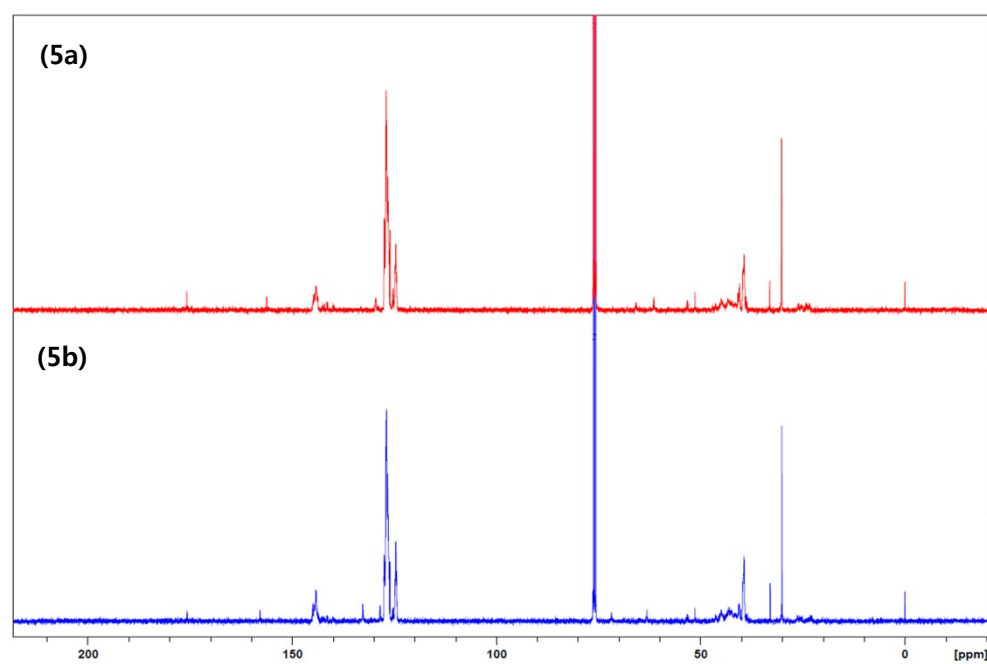


Fig. S11. ^{13}C NMR spectra of **5a** and **5b** (CDCl_3 , 28 $^\circ\text{C}$)

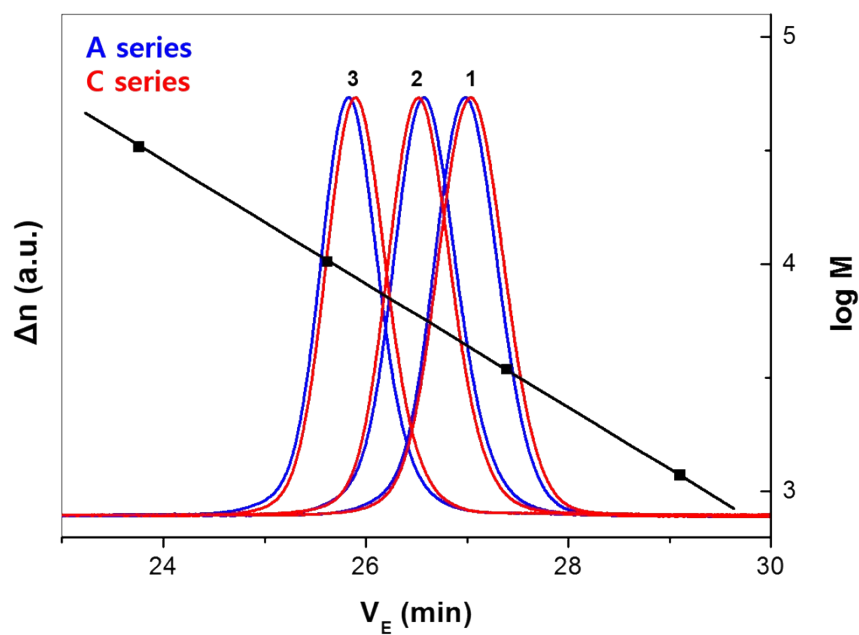


Fig. S12. SEC traces of 4-arm star polymers **5a**(C1, C2, C3) and **5b**(A1, A2, A3). MW calibration curve obtained using 4 PS standards is also displayed.