

Supporting Information

for

Balancing intramolecular supramolecular interactions and polymer rigidity in the formation of single-chain polymeric nanoparticles

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Table S1: DLS and SEC results of folding experiments in DMF on polymer **P5-P8**.

Polymer	$M_{n,p}$ (Da.)	PDI _p	$M_{n,d}$ (Da.)	PDI _d	Collapse (%)	$R_{H,p}$ (nm)	$R_{H,d}$ (nm)
P5a	13500	1.13	13200	1.10	2.3	17.6	16.2
P5b	41000	1.66	32700	1.42	20.1	9.1	8.5
P5c	16200	1.23	7000	1.42	56.8	4.5	4.9
P6	nd ^a	nd ^a	nd ^a	nd ^a	nd ^a	nd ^a	nd ^a
P7a	8900	1.28	6000	1.36	31.9	4.6	4.4
P7b	nd	nd	nd	nd	nd	5.3	5.0
P8	nd ^a	nd ^a	nd ^a	nd ^a	nd ^a	nd ^a	nd ^a

nd = not determined. $M_{n,p}$ = M_n photoprotected polymer in Da. $M_{n,d}$ = M_n deprotected polymer in Da. M_n relative to PEO standards. a: no signal detected; because of insufficient RI difference between solvent and polymer.

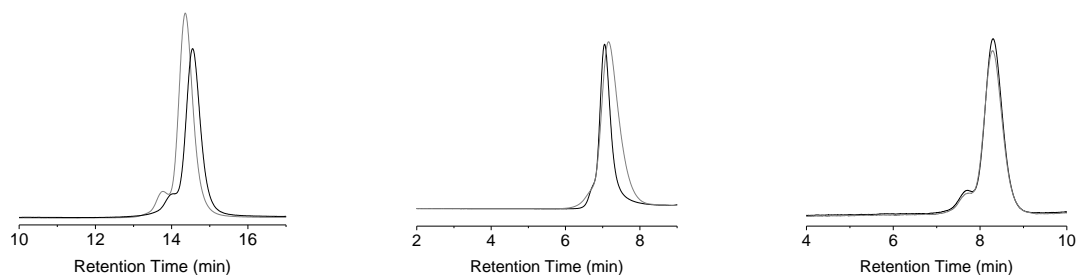


Fig. S1: SEC traces of polymer **P5a** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

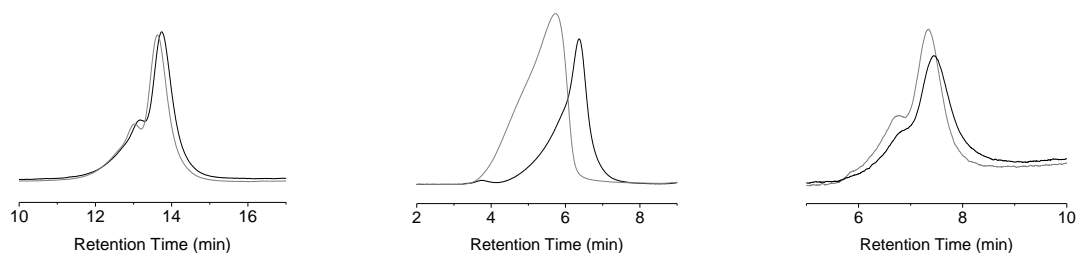


Fig. S2: SEC traces of polymer **P5b** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

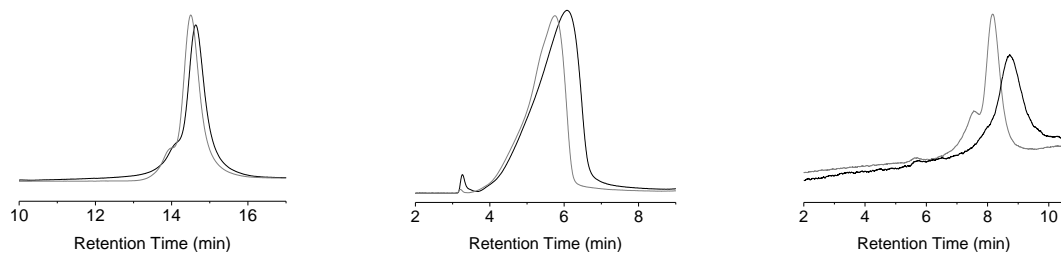


Fig. S3: SEC traces of polymer **P5c** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

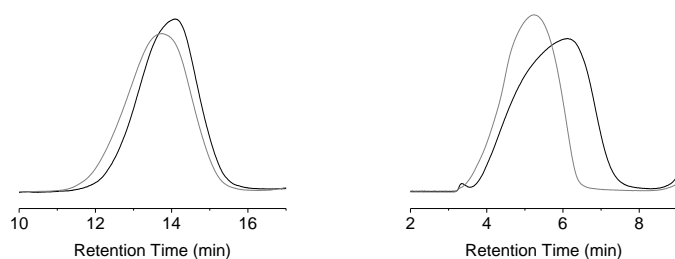


Fig. S4: SEC traces of polymer **P6** in THF (left and, chloroform (right) before (grey) and after deprotection (black) of the photocleavable group.

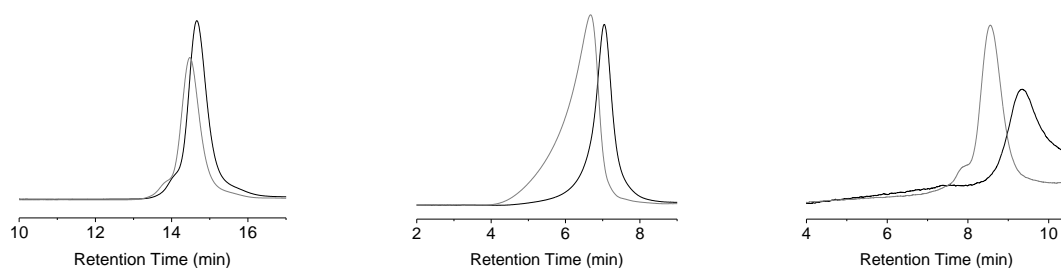


Fig. S5: SEC traces of polymer **P7a** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

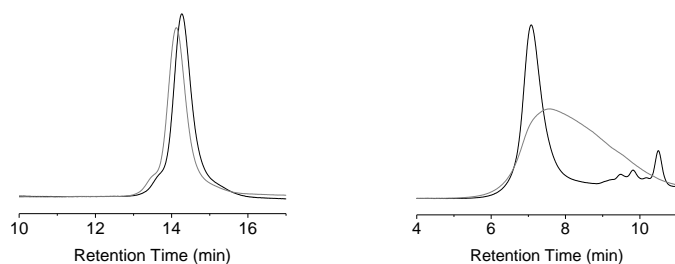


Fig. S6: SEC traces of polymer **P7b** in THF (left and, chloroform (right) before (grey) and after deprotection (black) of the photocleavable group.

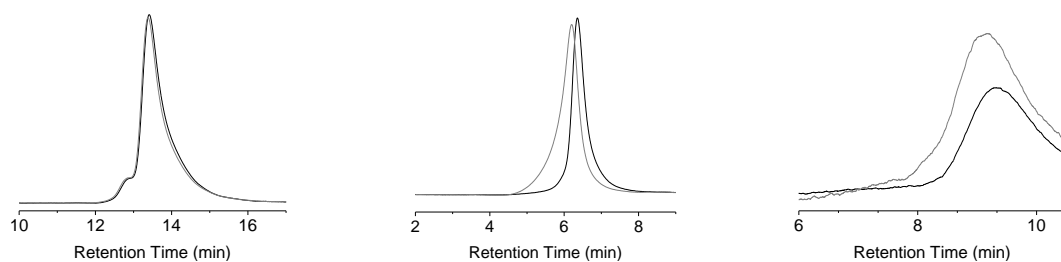


Fig. S7: SEC traces of polymer **P8** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

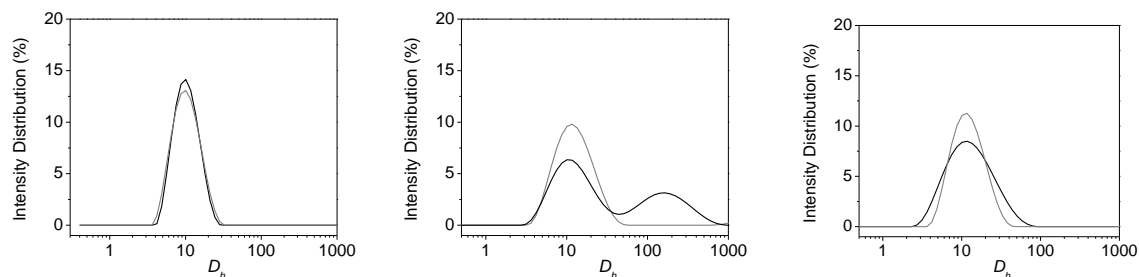


Fig. S8: DLS measurements on polymer **P5a** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

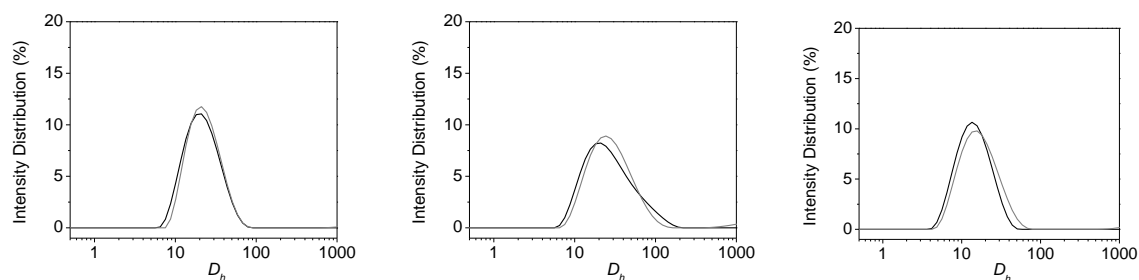


Fig. S9: DLS measurements on polymer **P5b** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

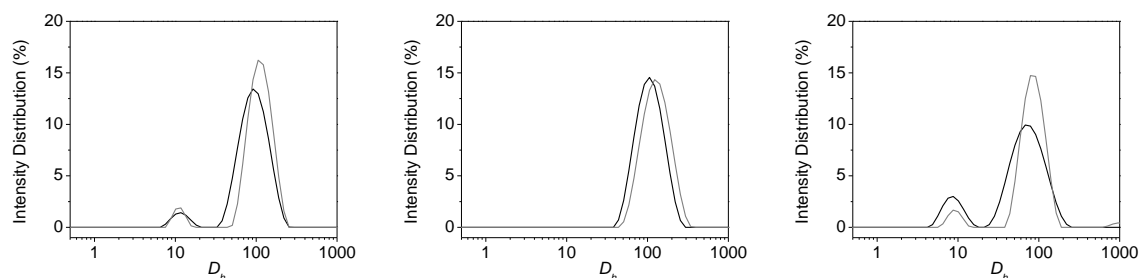


Fig. S10: DLS measurements on polymer **P5c** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

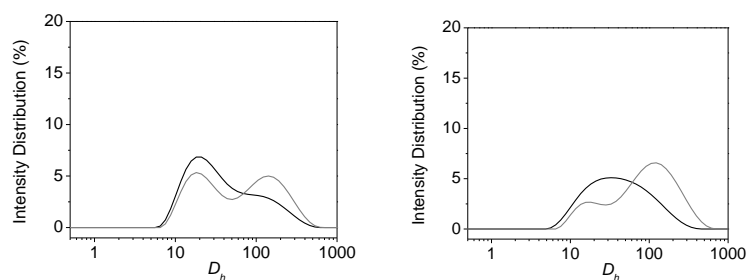


Fig. S11: DLS measurements on polymer **P6** in THF (left) and chloroform (right) before (grey) and after deprotection (black) of the photocleavable group.

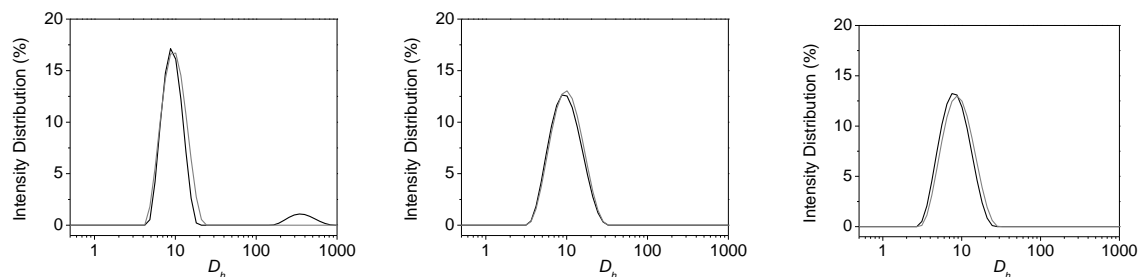


Fig. S12: DLS measurements on polymer **P7a** in THF (left) and chloroform (right) before (grey) and after deprotection (black) of the photocleavable group.

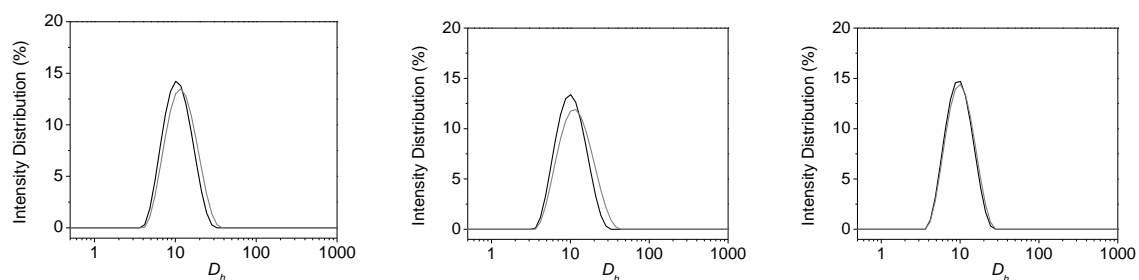


Fig. S13: DLS measurements on polymer **P7b** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

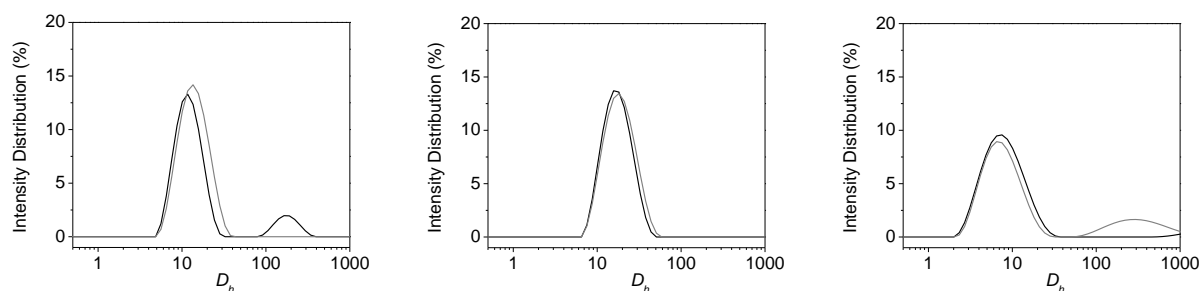


Fig. S14: DLS measurements on polymer **P8** in THF (left), chloroform (middle) and DMF (right) before (grey) and after deprotection (black) of the photocleavable group.

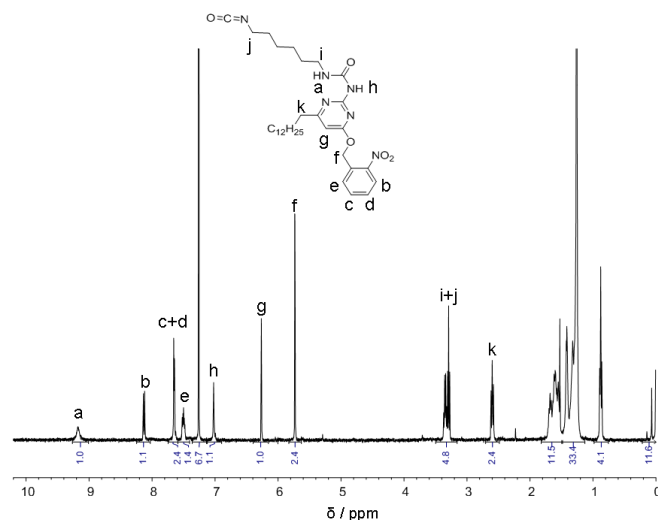


Fig. S15: ^1H -NMR spectrum of **5b**.

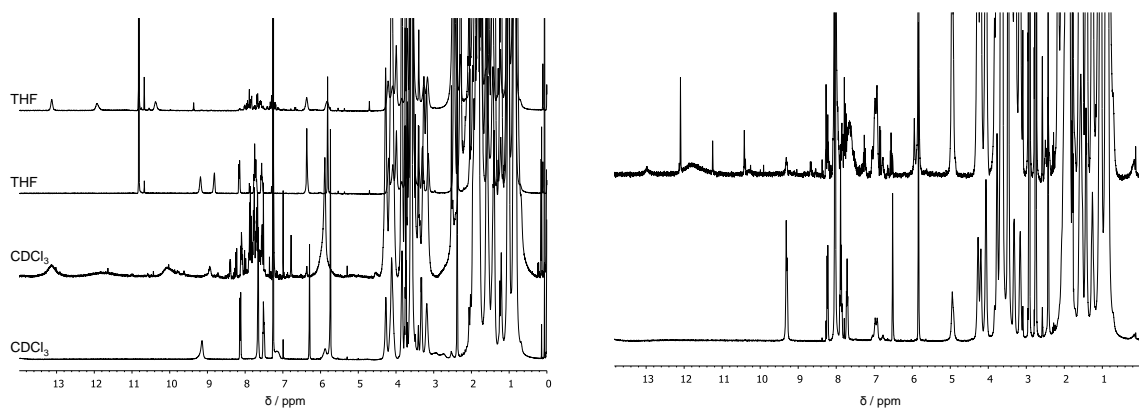


Fig. S16: ^1H -NMR spectra of **P5a** in CDCl_3 before (bottom-left) and after (second from bottom-left) deprotection, in THF- d_8 before (third from bottom-left) and after (top-left) deprotection and in DMF- d_7 before (bottom right) and after deprotection (top right) of the photocleavable group.

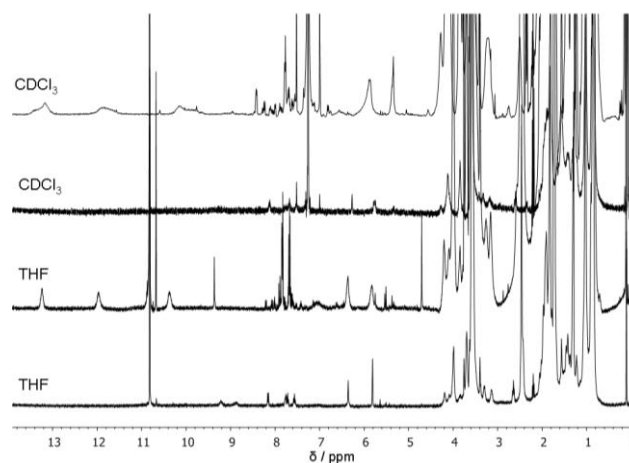


Fig. S17: ^1H -NMR spectra of **P5b** in CDCl_3 before (second from top) and after (top) deprotection, in THF- d_8 before (bottom) and after (second from bottom) deprotection of the photocleavable group.

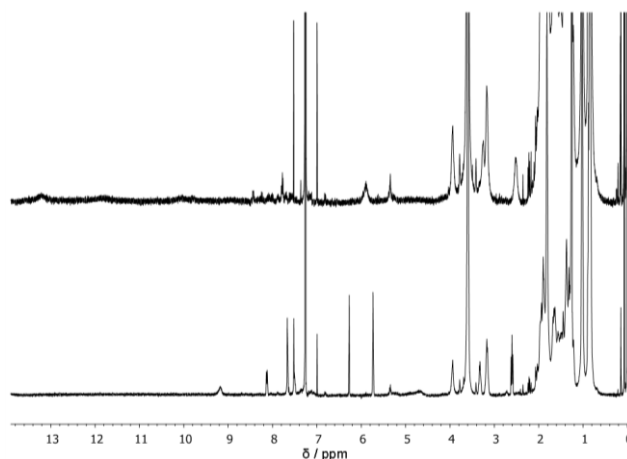


Fig. S18: ^1H -NMR spectra of **P5c** in CDCl_3 after (top) and before (bottom) deprotection of the photocleavable group.

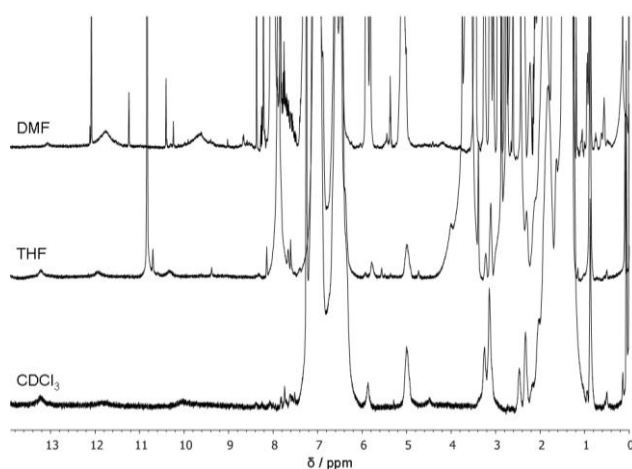


Fig. S19: ^1H -NMR spectra of **P7b** in CDCl_3 (bottom), in THF-d_8 (middle) and DMF-d_7 (top) after deprotection of the photocleavable group.

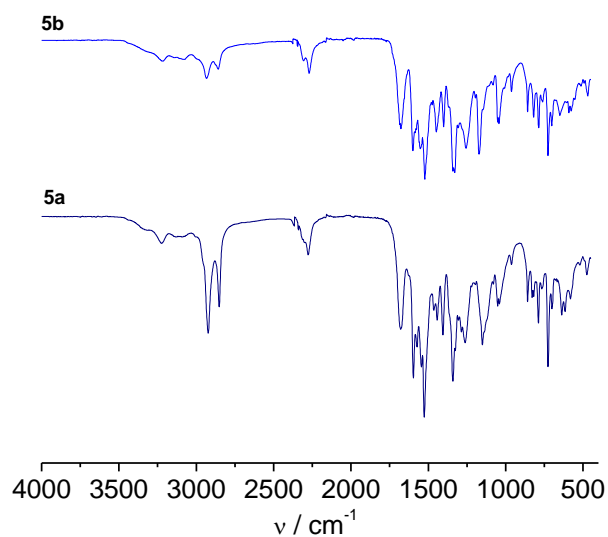


Fig. S20: IR-spectra of compound **5b** (top) and **5a** (bottom).

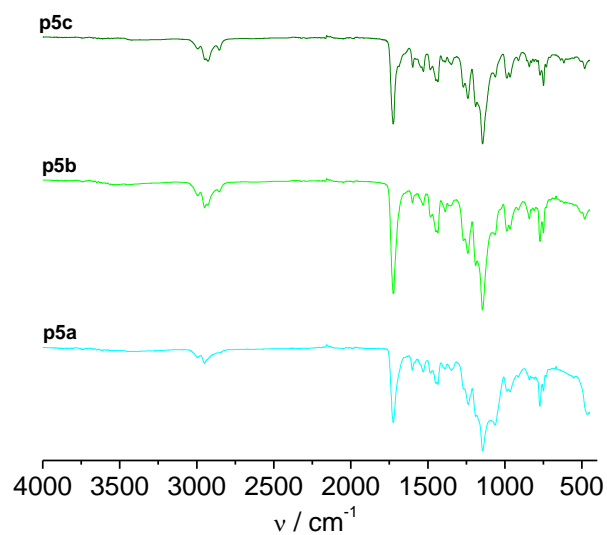


Fig. S21: IR-spectra of **P5c** (top), **P5b** (middle) and **P5a** (bottom).

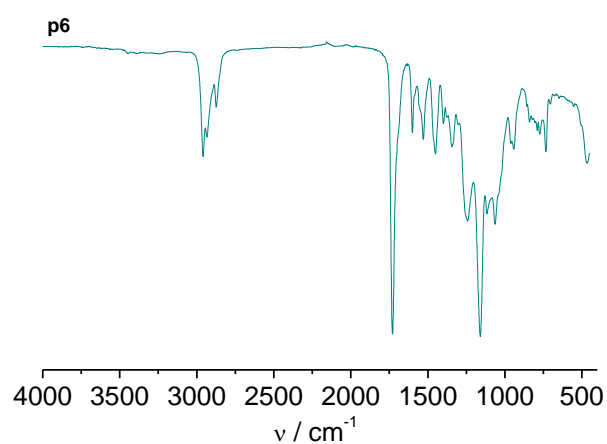


Fig. S22: IR-spectrum of **P6**.

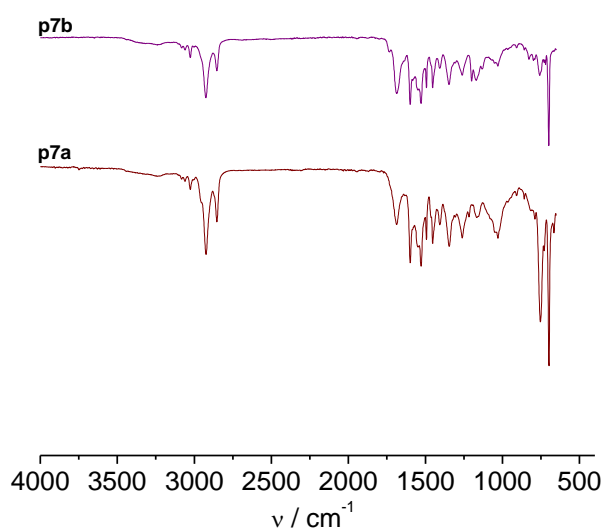


Fig. S23: IR-spectra of **P7b** (top) and **P7a** (bottom).

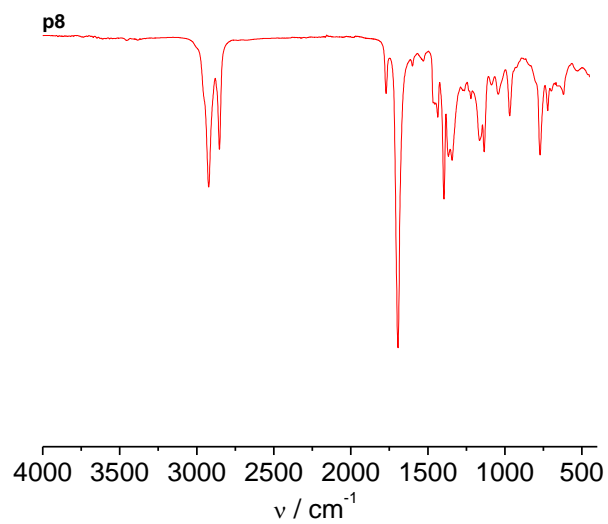


Fig. S24: IR-spectrum of **P8**.