

## *Supporting Information*

# **Cyclopentyl Methyl Ether as A Green Solvent for Reversible-Addition Fragmentation Chain Transfer and Nitroxide-Mediated Polymerizations**

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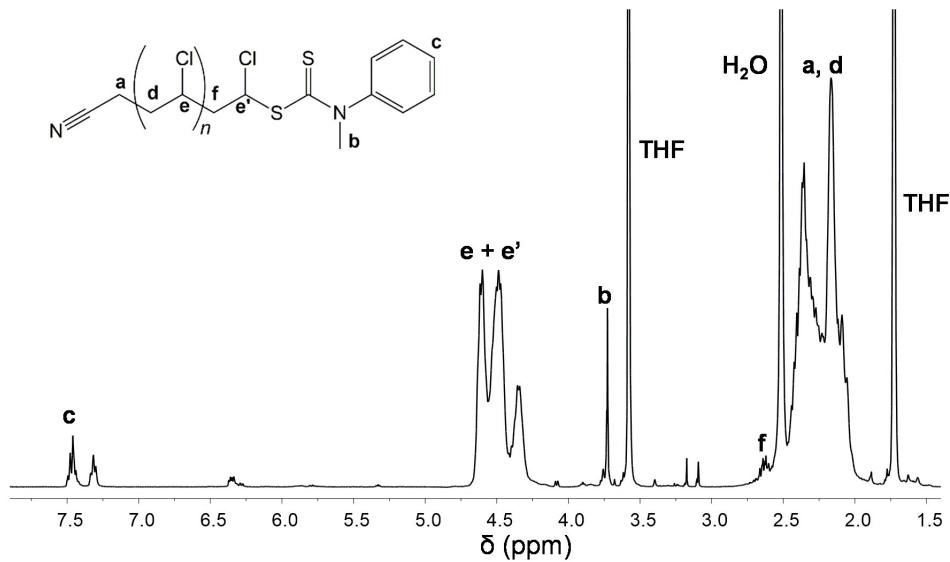
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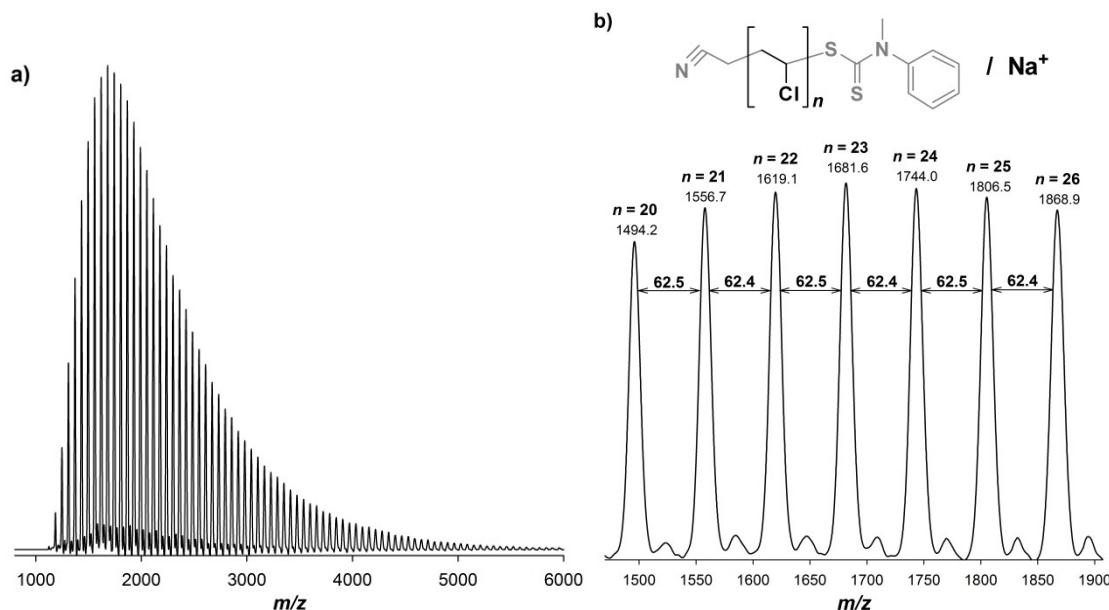
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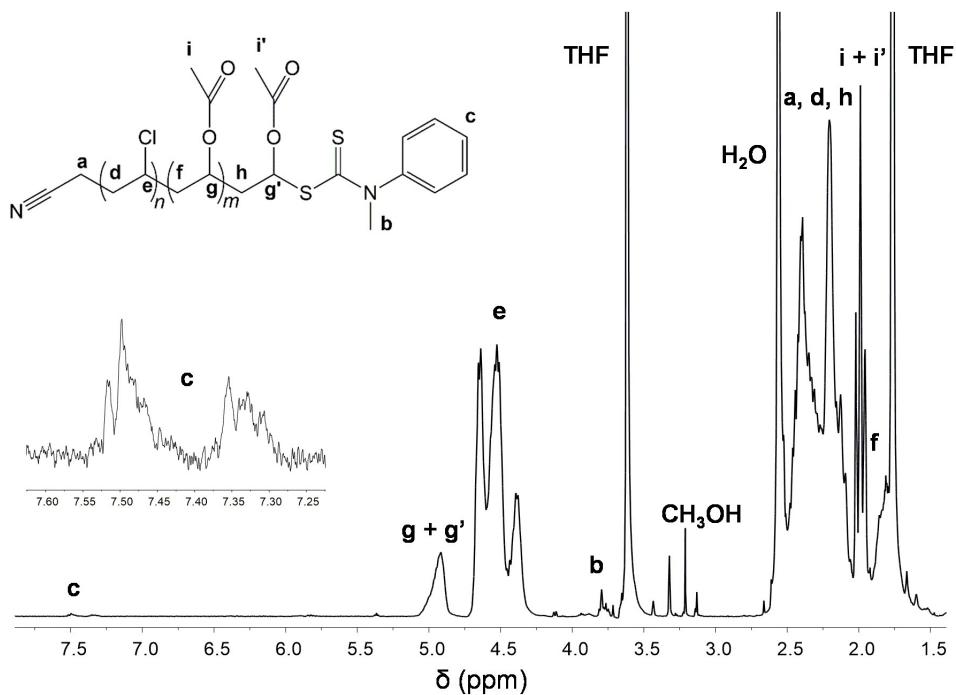
## Results



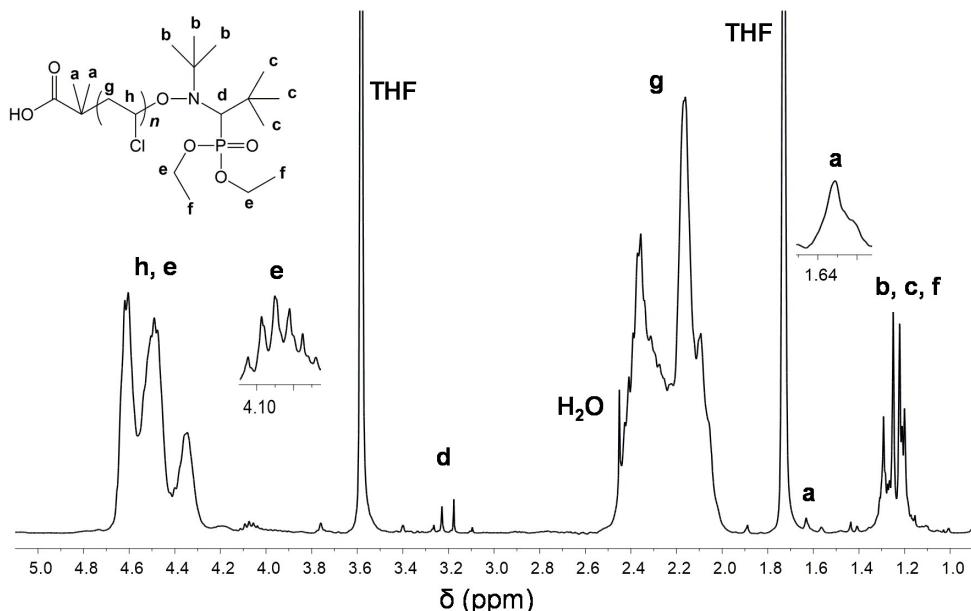
**Fig. S1** The  $^1\text{H}$  NMR spectrum in  $\text{THF}-d_8$  of PVC-CTA ( $M_n^{\text{SEC}} = 4200$ ;  $D = 1.54$ ) obtained in Table 1, entry 5.



**Fig. S2** (a) MALDI-TOF-MS in the linear mode (using HABA as matrix) of PVC-CTA ( $M_n^{\text{SEC}} = 4200$ ,  $D = 1.54$ ) obtained in Table 1, entry 5; (b) Enlargement of the MALDI-TOF-MS from  $m/z$  1500 to 1900 of PVC-CTA.



**Fig. S3**  $^1\text{H}$  NMR spectrum of the PVAc-*b*-PVC diblock copolymer ( $M_n^{\text{SEC}} = 30200$ ;  $D = 1.59$ ) in  $\text{THF}-d_8$ .



**Fig. S4**  $^1\text{H}$  NMR spectra in  $d_8\text{-THF}$  of a purified PVC ( $M_n^{\text{SEC}} = 4300$ ;  $D = 1.55$ ) obtained in Table 2, entry 4.