

Supplementary material

Temperature behavior of aqueous solutions of poly(2-oxazoline) homopolymer and block copolymers investigated by NMR spectroscopy and dynamic light scattering

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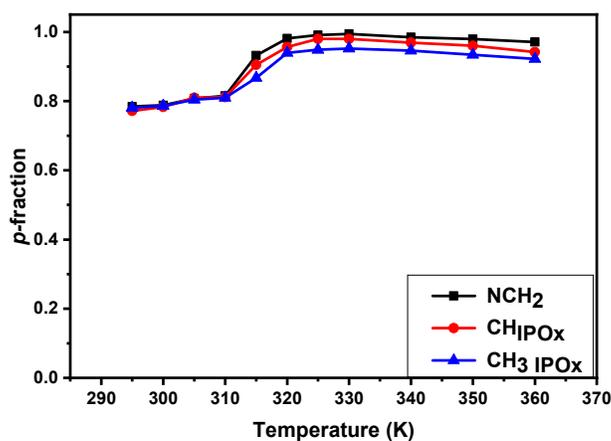


Figure S1. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 5$ wt%) of PIPO_x homopolymer during gradual cooling.

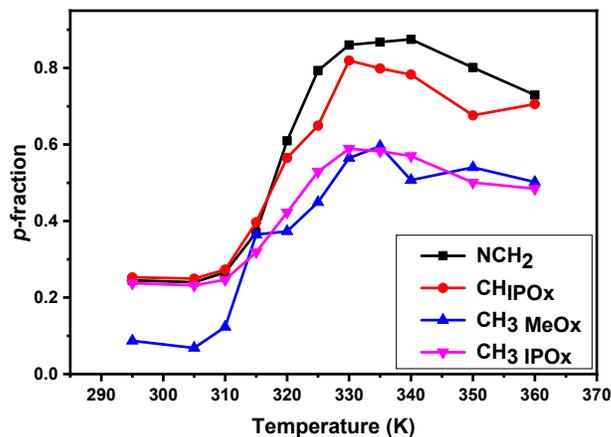


Figure S2. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 5$ wt%) of P(MeOx/IPOx)(14/86) copolymer during gradual cooling.

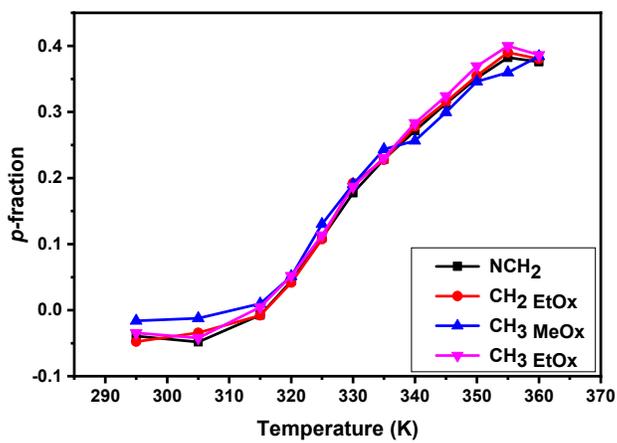


Figure S3. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 5$ wt%) of P(MeOx/EtOx)(28/72) copolymer during gradual cooling.

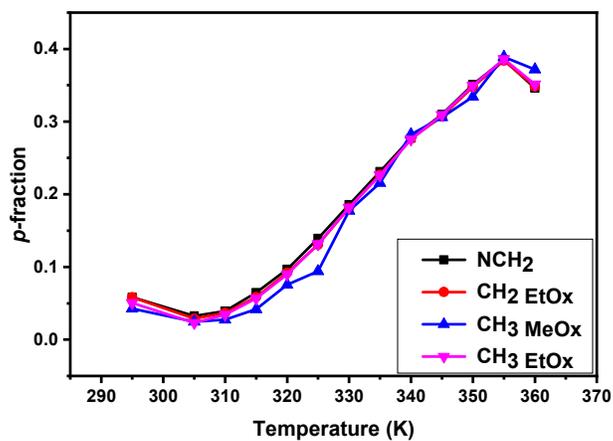


Figure S4. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 5$ wt%) of P(MeOx/EtOx)(7/93) copolymer during gradual cooling.

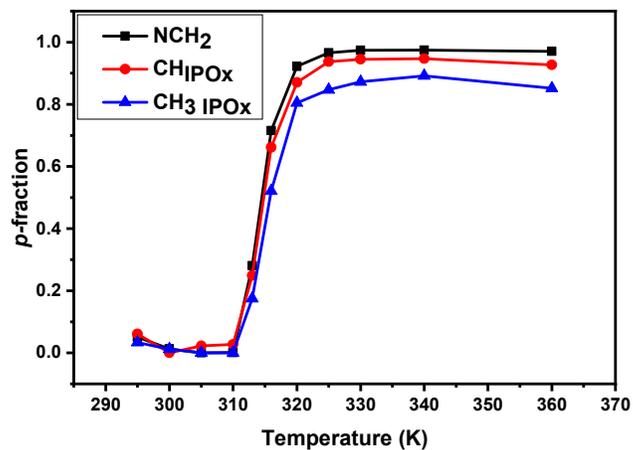


Figure S5. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 0.5$ wt%) of PIPOx homopolymer during gradual heating.

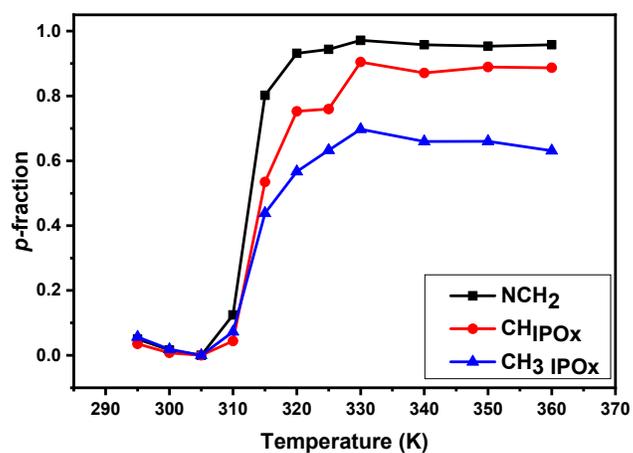


Figure S6. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 20$ wt%) of PIPOx homopolymer during gradual heating.

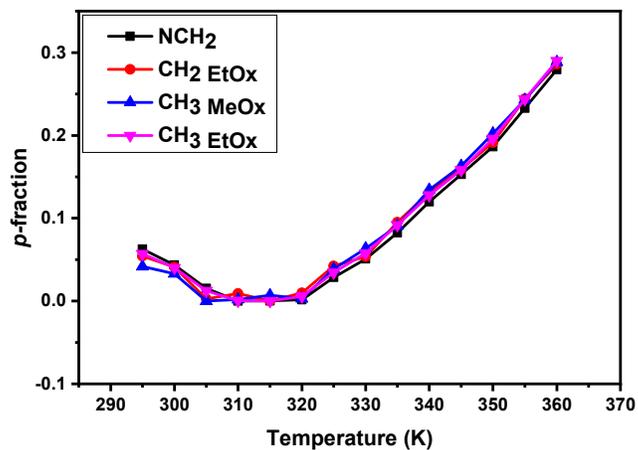


Figure S7. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 0.5$ wt%) of P(MeOx/EtOx)(28/72) copolymer during gradual heating.

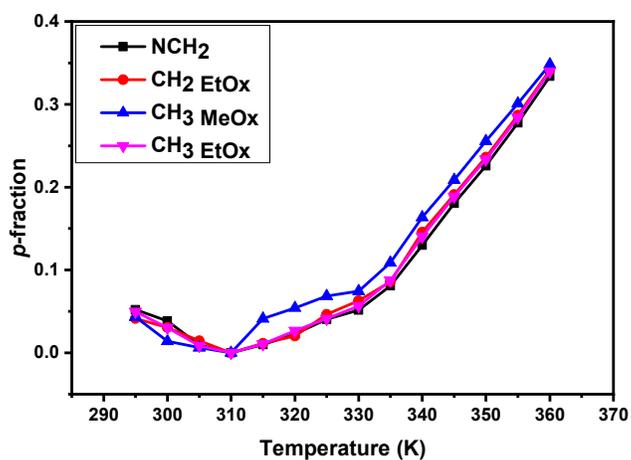


Figure S8. Temperature dependences of the fraction p as determined for all signals of various proton types in D₂O solution ($c = 20$ wt%) of the P(MeOx/EtOx)(28/72) copolymer during gradual heating.

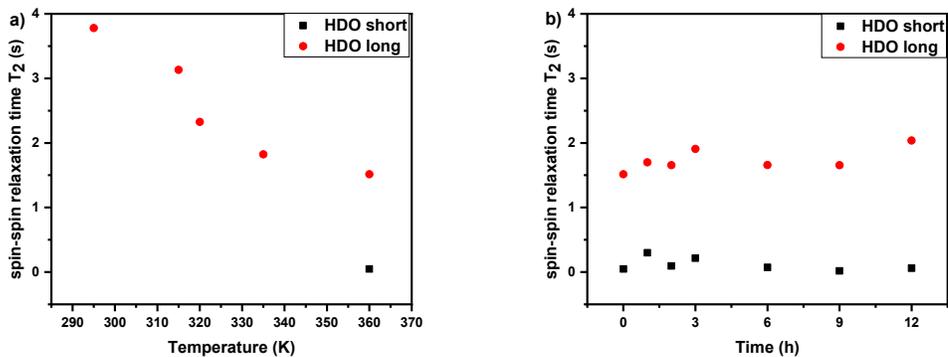


Figure S9. Temperature dependence (a) and time dependence at 360 K (b) of ^1H spin-spin relaxation times T_2 of HDO in D_2O solution ($c = 5$ wt%) of the P(MeOx/IPOx)(14/86) copolymer.

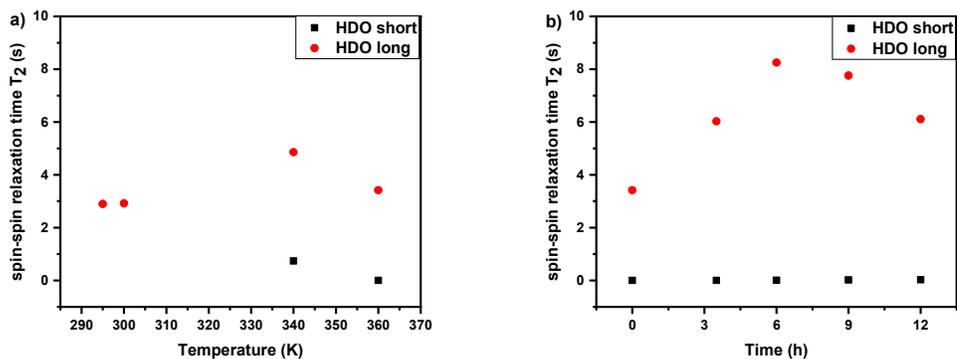


Figure S10. Temperature dependence (a) and time dependence at 360 K (b) of ^1H spin-spin relaxation times T_2 of HDO in D_2O solution ($c = 5$ wt%) of the P(MeOx/EtOx)(28/72) copolymer.

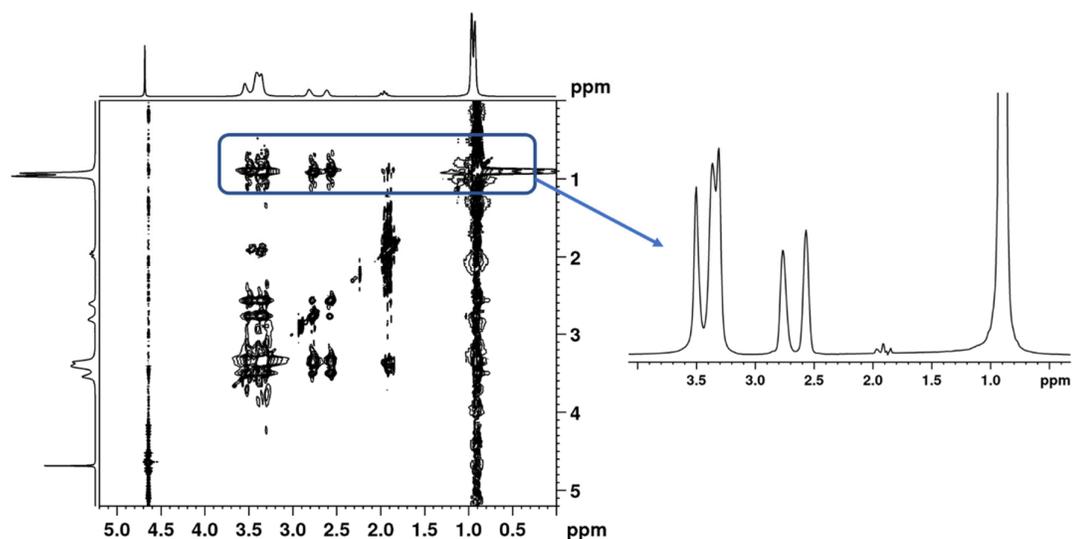


Figure S11. 2D NOESY spectrum of the P(MeOx/IPOx)(14/86) block copolymer in D₂O solution (*c* = 5 wt%) measured at 295 K with mixing time 600 ms. On the right there is 1D slice spectrum extracted from the signal at 1.05 ppm of CH₃ protons of PIPOx units of the NOESY spectrum.

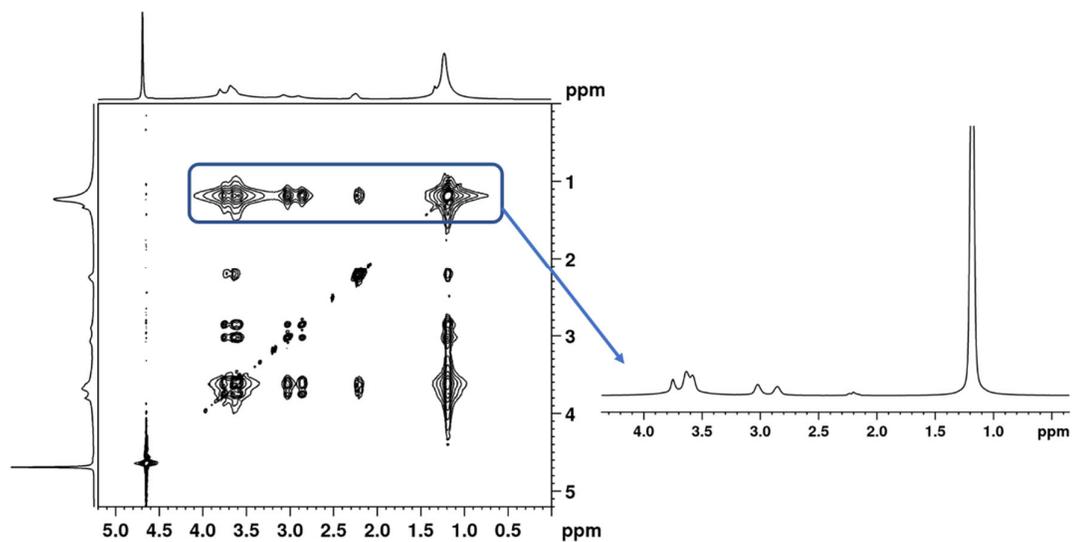


Figure S12. 2D NOESY spectrum of the P(MeOx/IPOx)(14/86) block copolymer in D₂O solution (*c* = 5 wt%) measured at 320 K with mixing time 600 ms. On the right there is 1D slice spectrum extracted from the signal at 1.05 ppm of CH₃ protons of PIPOx units of the NOESY spectrum.

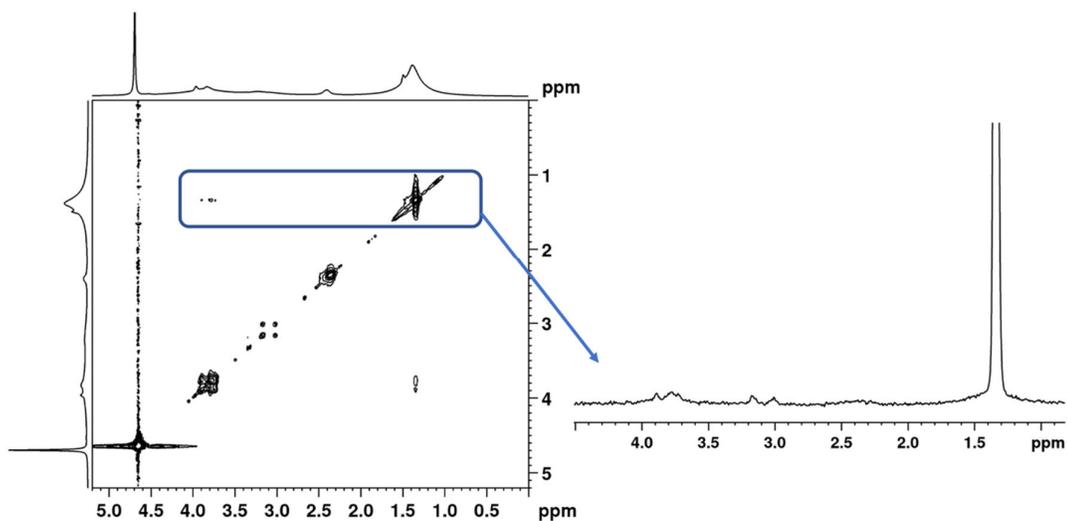


Figure S13. 2D NOESY spectrum of the P(MeOx/IPOx)(14/86) block copolymer in D₂O solution (*c* = 5 wt%) measured at 335 K with mixing time 600 ms. On the right there is 1D slice spectrum extracted from the signal at 1.05 ppm of CH₃ protons of PIPOx units of the NOESY spectrum.

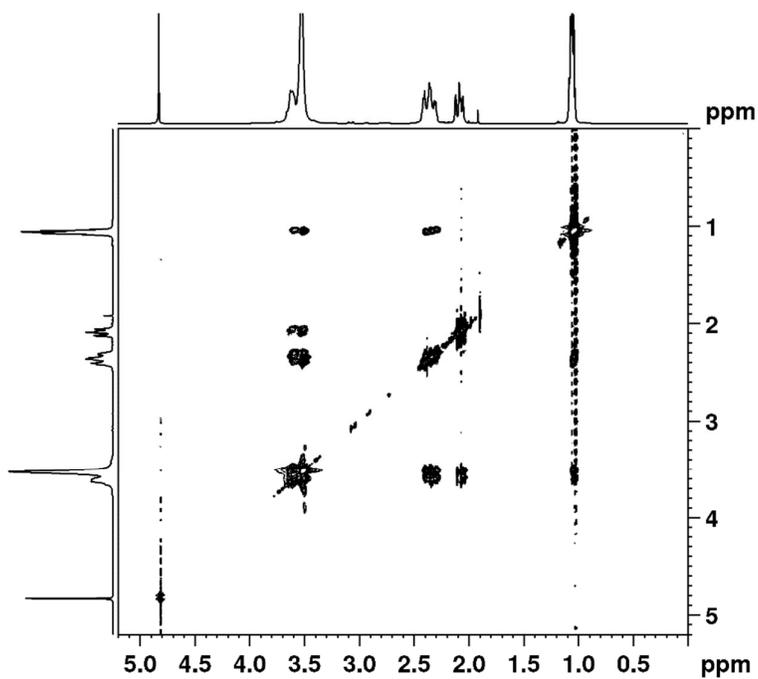


Figure S14. 2D NOESY spectrum of the P(MeOx/EtOx)(28/72) block copolymer in D₂O solution (*c* = 5 wt%) measured at 295 K with mixing time 600 ms.

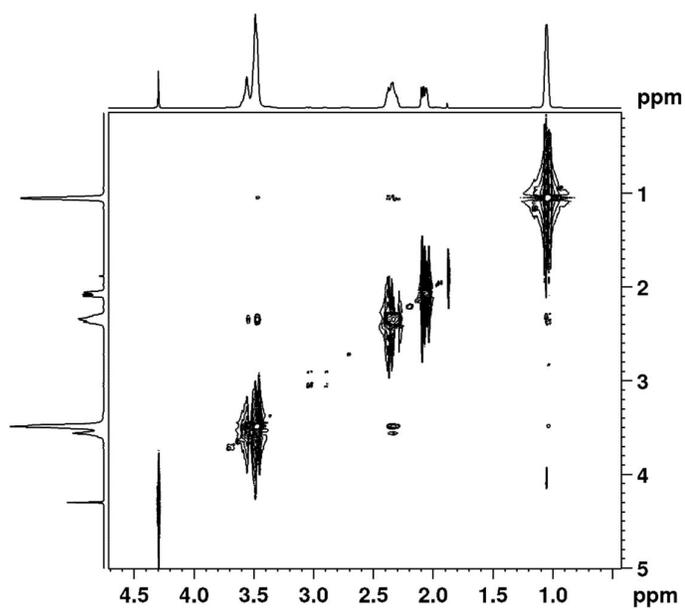


Figure S15. 2D NOESY spectrum of the P(MeOx/EtOx)(28/72) block copolymer in D₂O solution (c = 5 wt%) measured at 340 K with mixing time 600 ms.

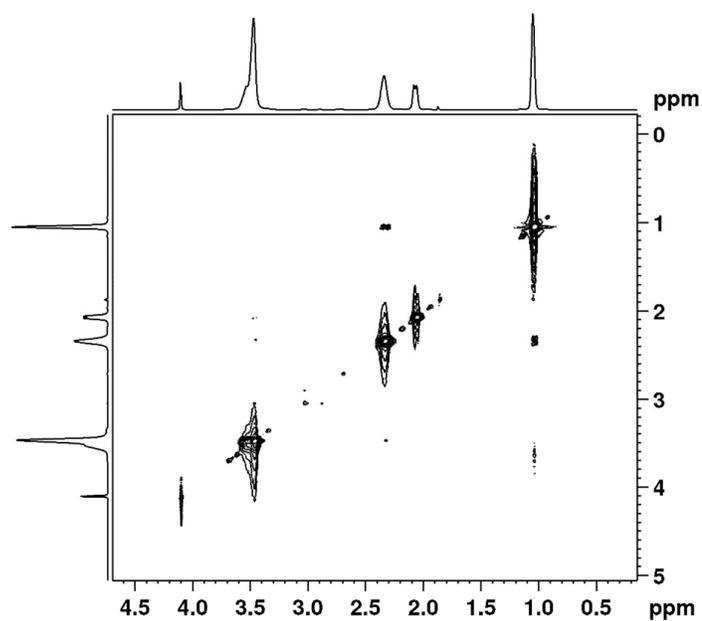


Figure S16. 2D NOESY spectrum of the P(MeOx/EtOx)(28/72) block copolymer in D₂O solution (c = 5 wt%) measured at 360 K with mixing time 600 ms.