Supporting information for:

Design of fluorescent polymeric thermometers based on anthrapyrazolone functionalized oligo(ethylene glycol) methacrylates

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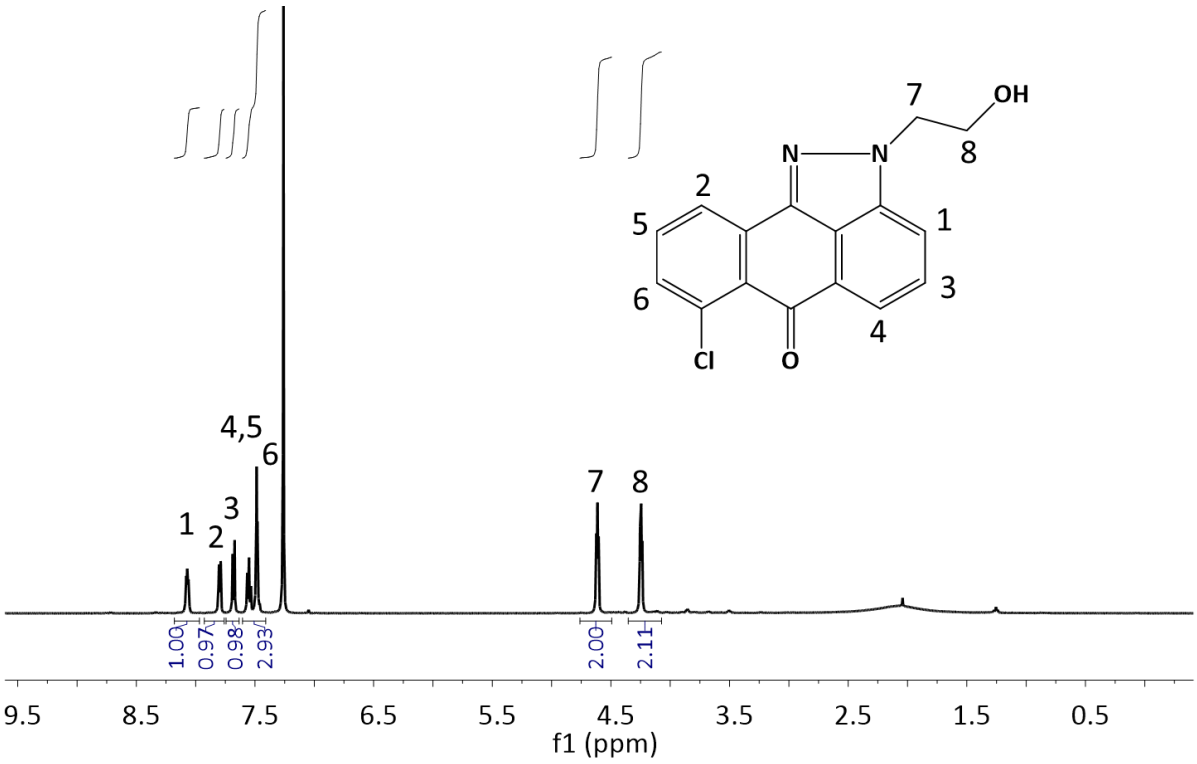

Figure S1. [1]H NMR spectrum of 7-chloro-2-(2-hydroxyethyl)dibenzo[cd,g]indazol-6(2H)-one

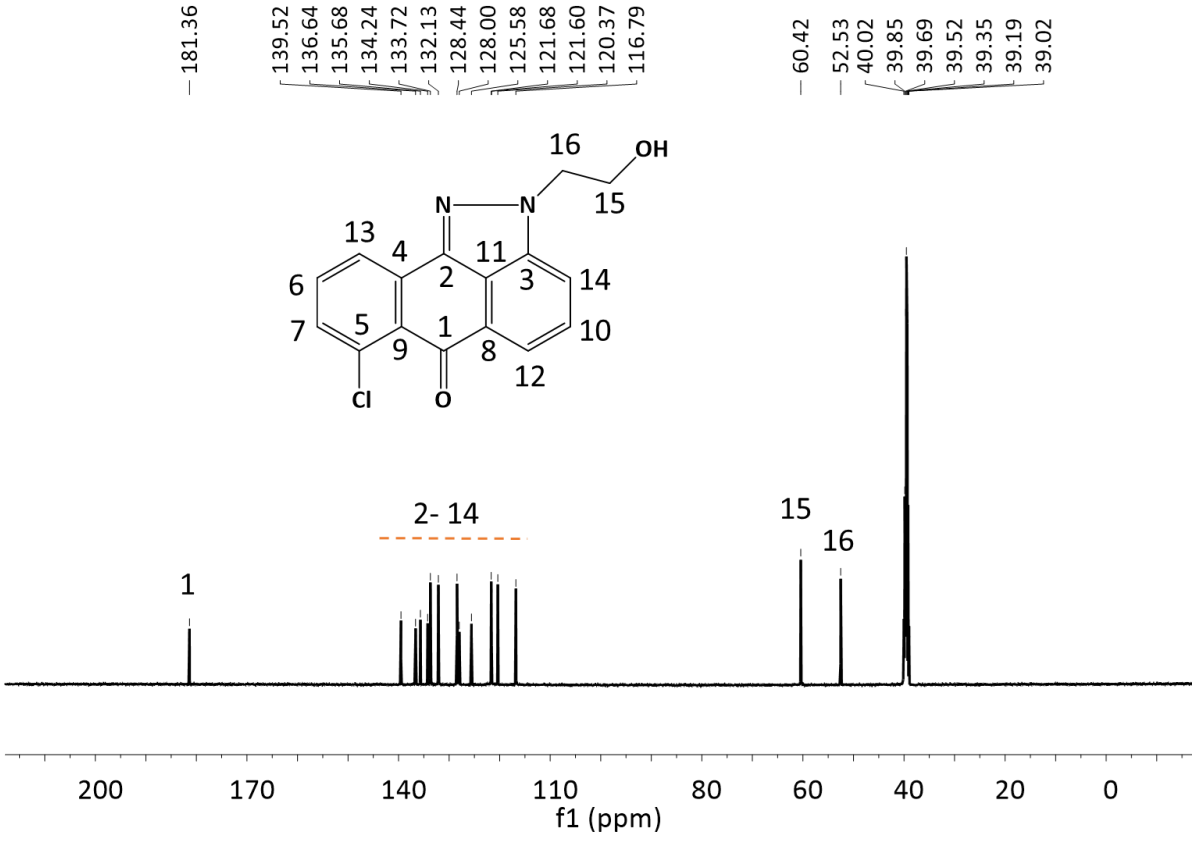

Figure S2. [13]C NMR spectrum of 7-chloro-2-(2-hydroxyethyl)dibenzo[cd,g]indazol-6(2H)-one

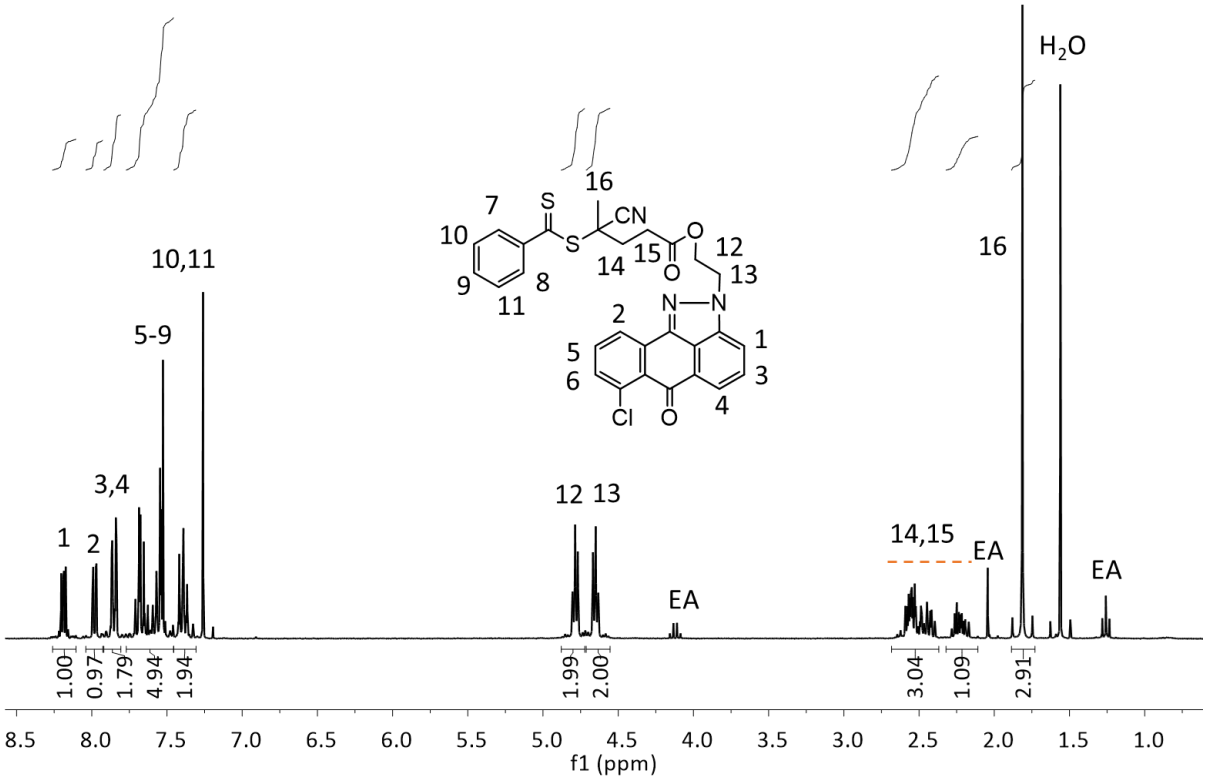

Figure S3. ^{1}H NMR spectrum of RAFT-Dye ester (powder) measured in $CDCl_3$. Ethyl acetate (EA) is present as impurity.

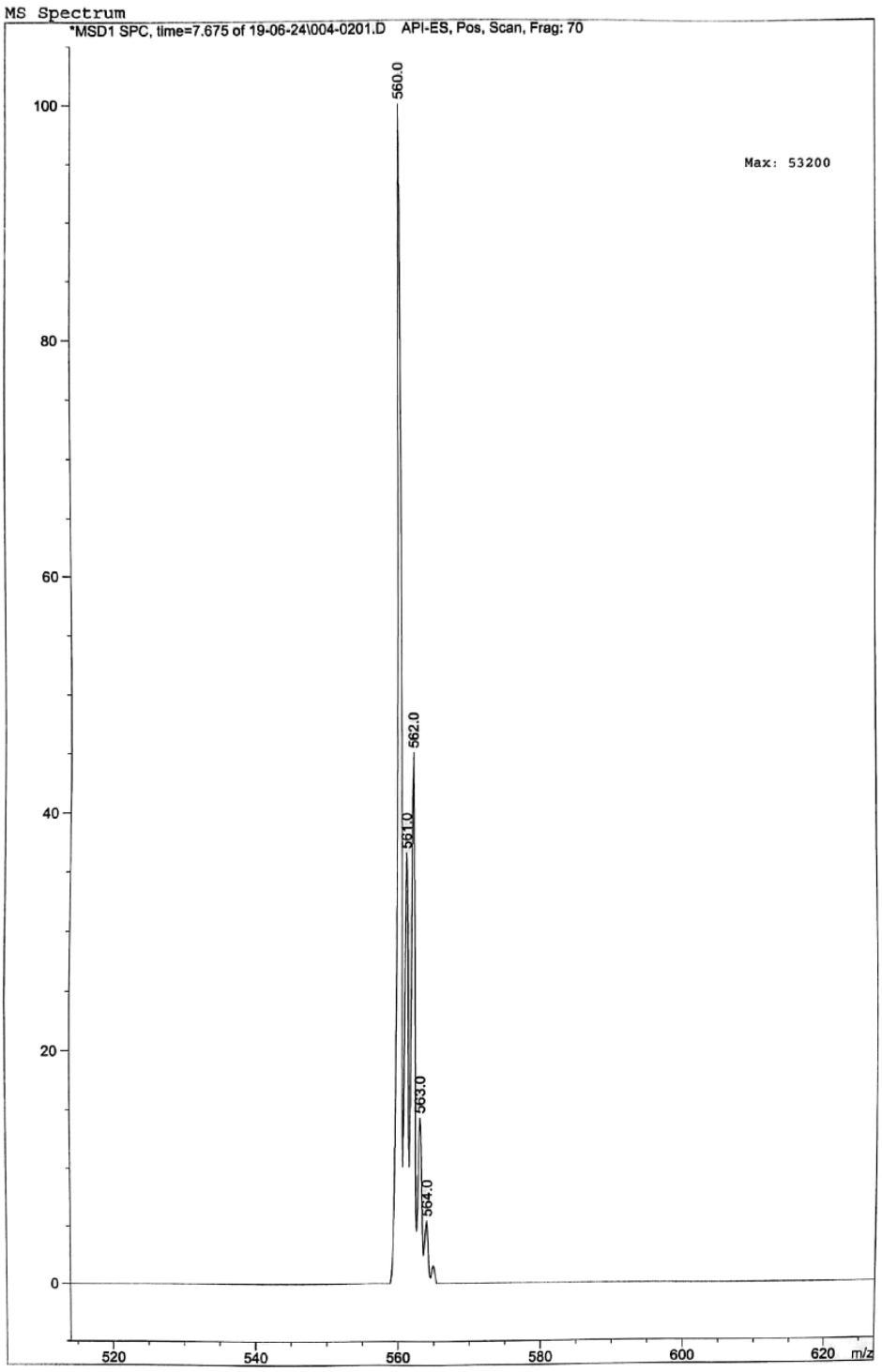

Figure S4. LC MS of RAFT CTA

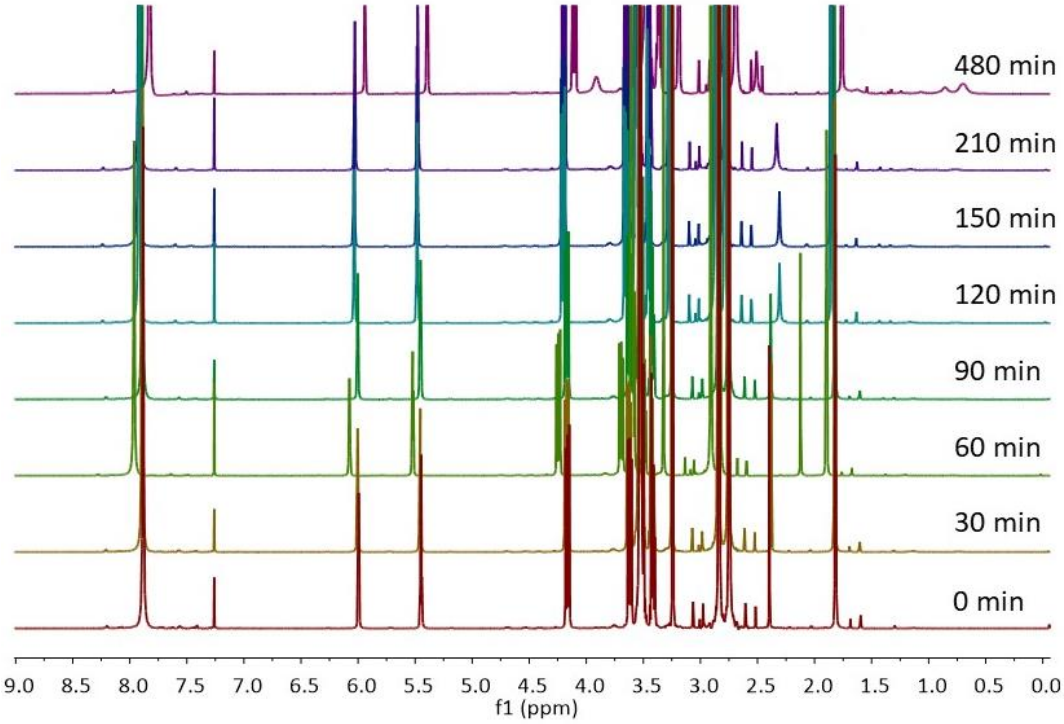

Figure S5. ^{1}H NMR spectra was recorded in $CDCl_3$ during the RAFT homo-polymerization of $OEGMA_{300}$ at 70 °C.

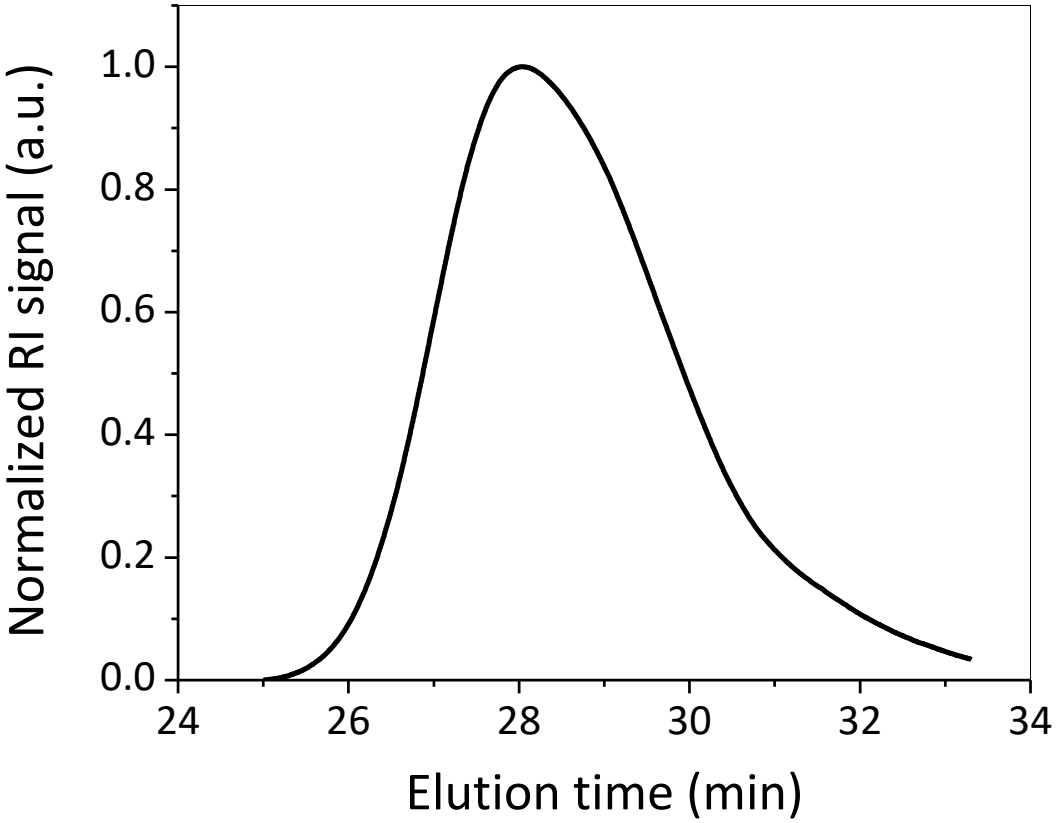

Figure S6. SEC trace of the final sample of $POEGMA_{300}$ measured in DMAc containing 50 ×10^{-3} M of LiCl at 50 °C at a flow rate of 0.500 mL/min.

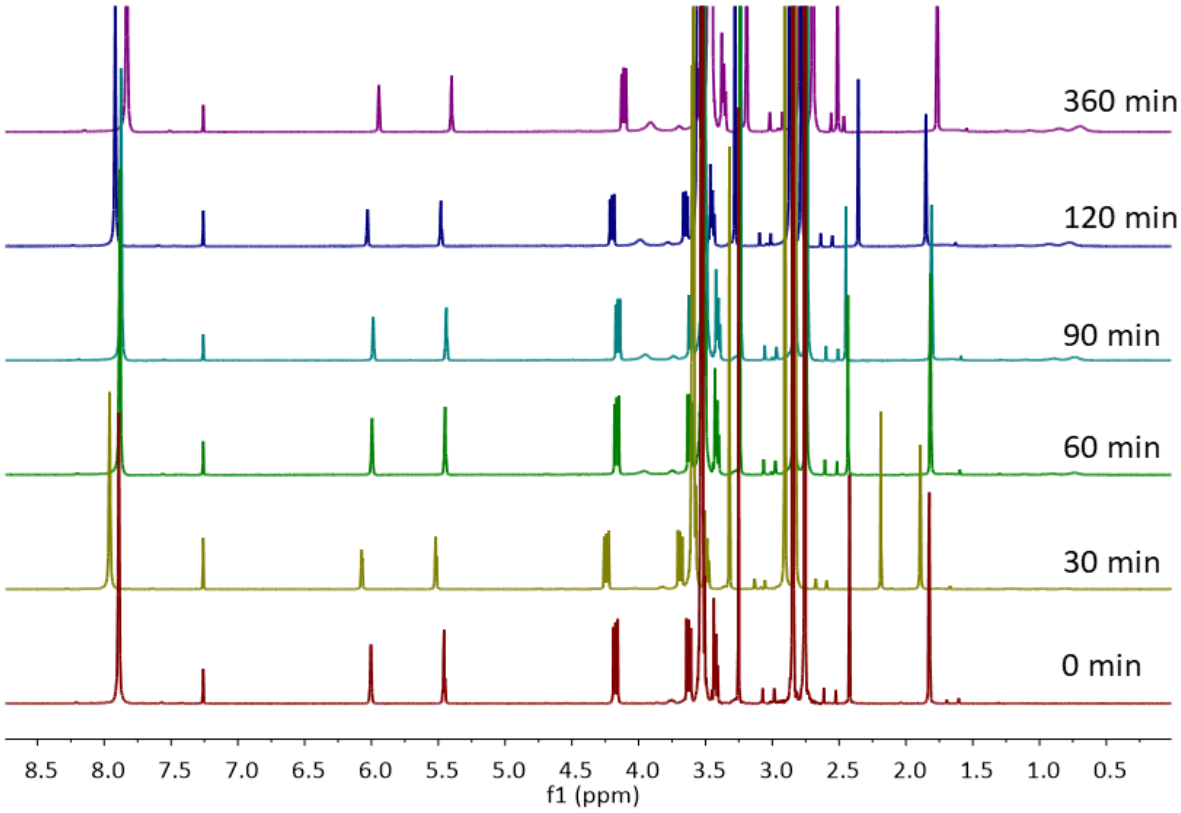

Figure S7. ^{1}H NMR spectra was recorded in $CDCl_3$ during the RAFT homo-polymerization of $OEGMA_{500}$ at 70 ^{o}C.

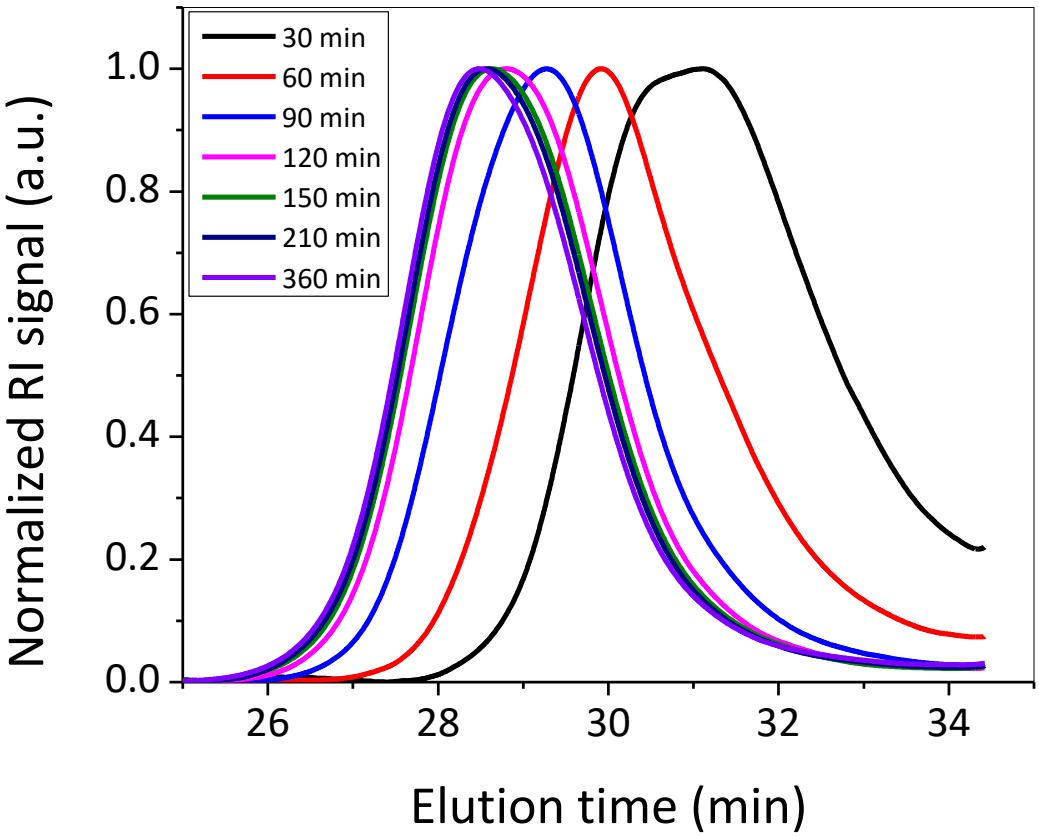

Figure S8. Overlay of SEC traces of POEGMA$_{500}$ measured in DMAc containing 50 ×10^{-3} M of LiCl at 50 °C at a flow rate of 0.500 mL/min.

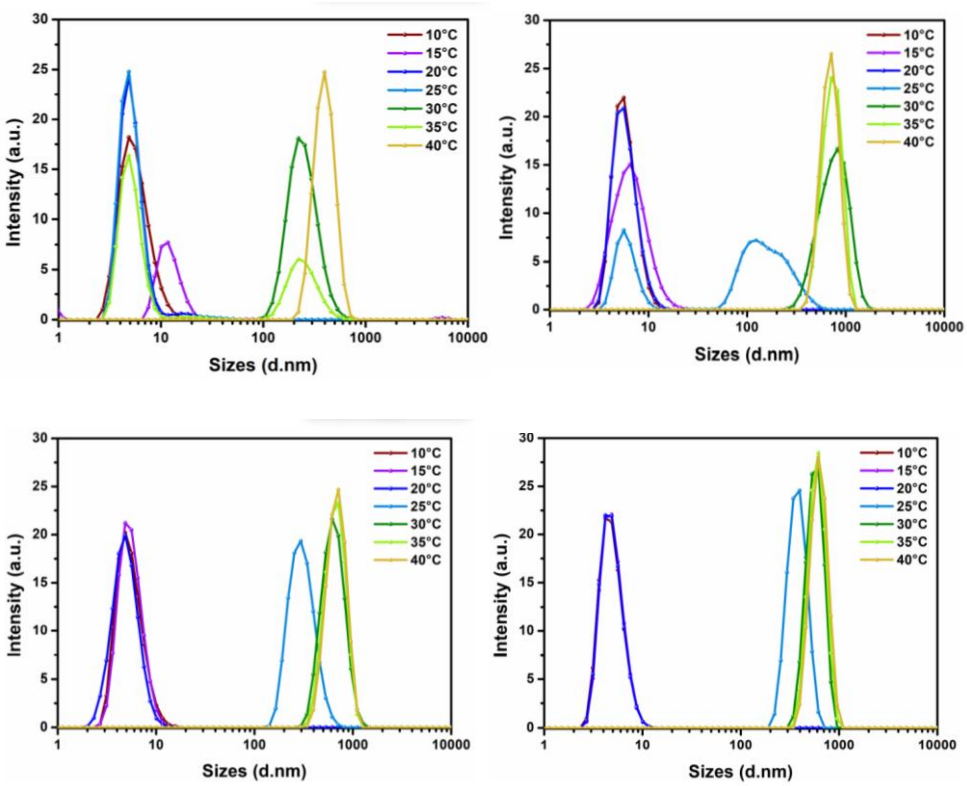

Figure S9. DLS results in water as a function of temperature for P(MEO$_2$MA). The polymer concentration was top (left) 0.5 and (right) 1 mg/mL; bottom (left) 2 and (right) 3 mg/mL respectively.

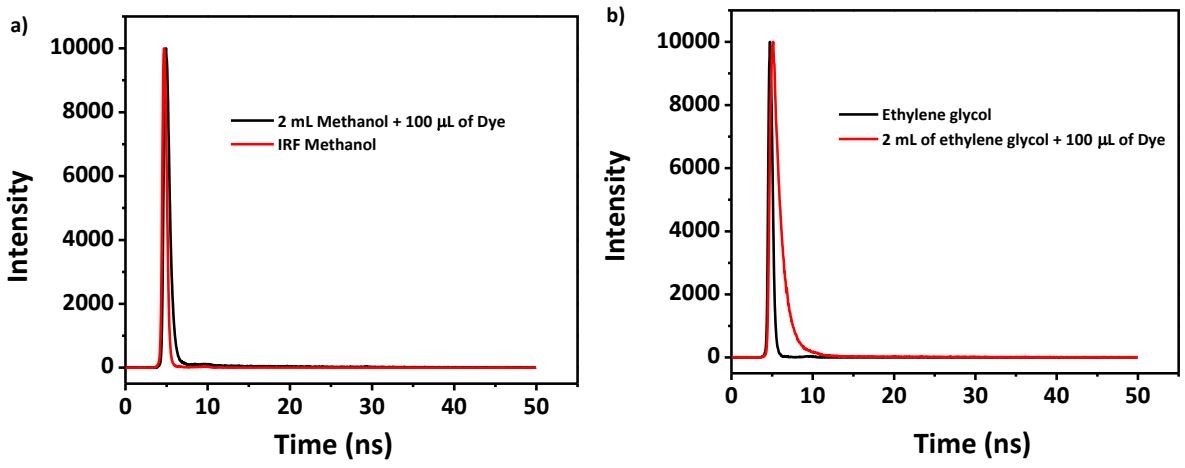

Figure S10. Fluorescence Lifetime decay of Cl-Dye-OH in a) methanol and b) ethylene glycol.

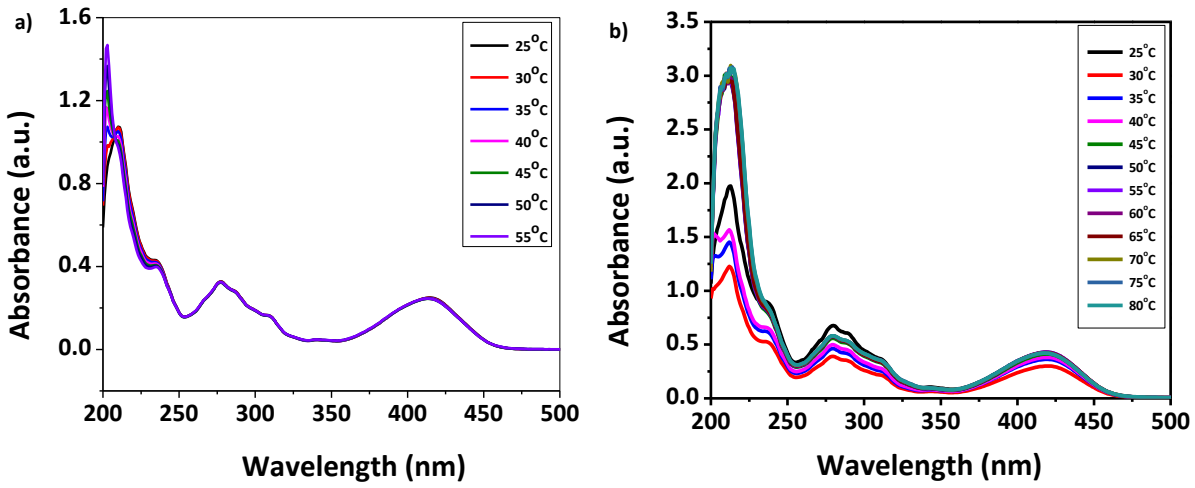

Figure S11. Absorption spectra of Cl-Dye-OH (0.99 µmol) in a) Methanol and b) ethylene glycol as a function of temperature.

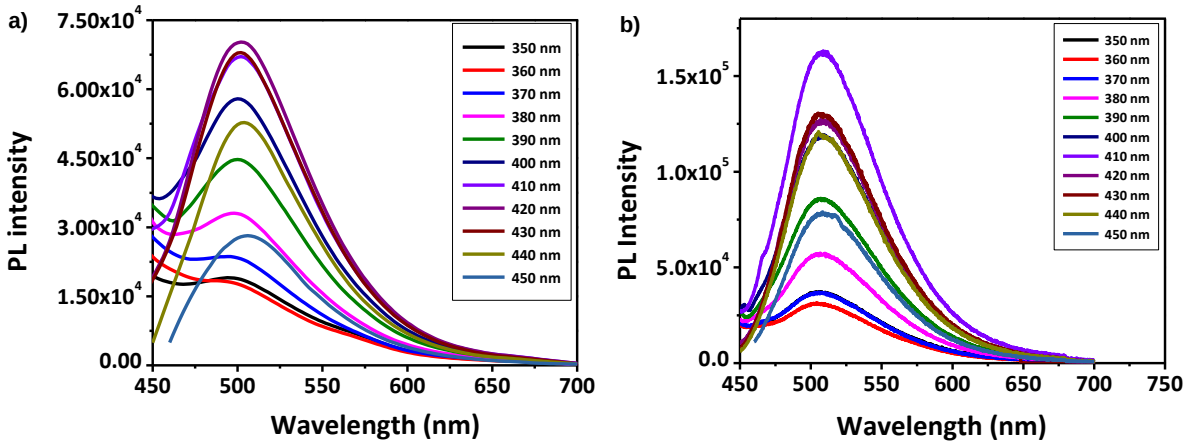

Figure S12. Fluorescence spectra of Cl-Dye-OH (0.1 µmol) in a) Methanol and b) in ethylene glycol and the emission at different excitation wavelength (350-450 nm).

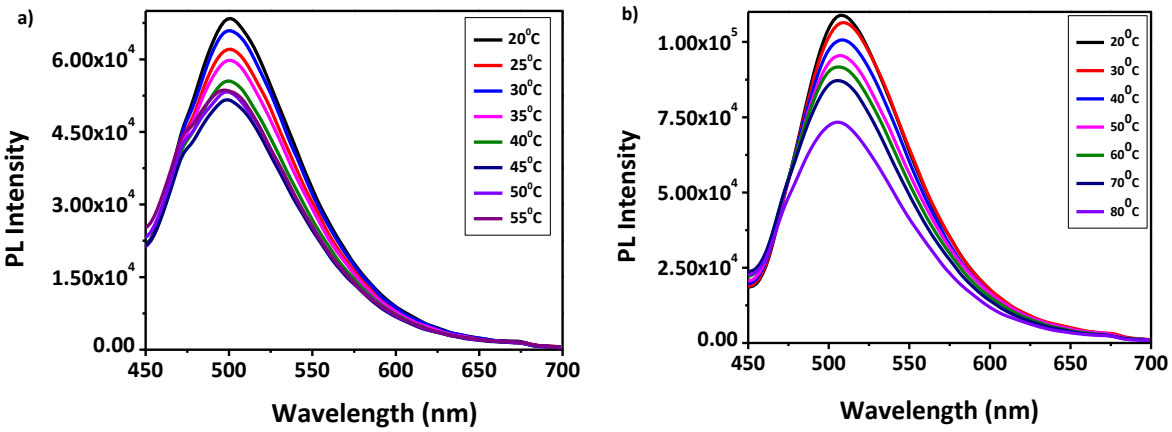

Figure S13. Fluorescence spectra (excitation wavelength 415 nm) of Cl-Dye-OH (0.1 µmol) in a) Methanol and b) ethylene glycol as a function of temperature.

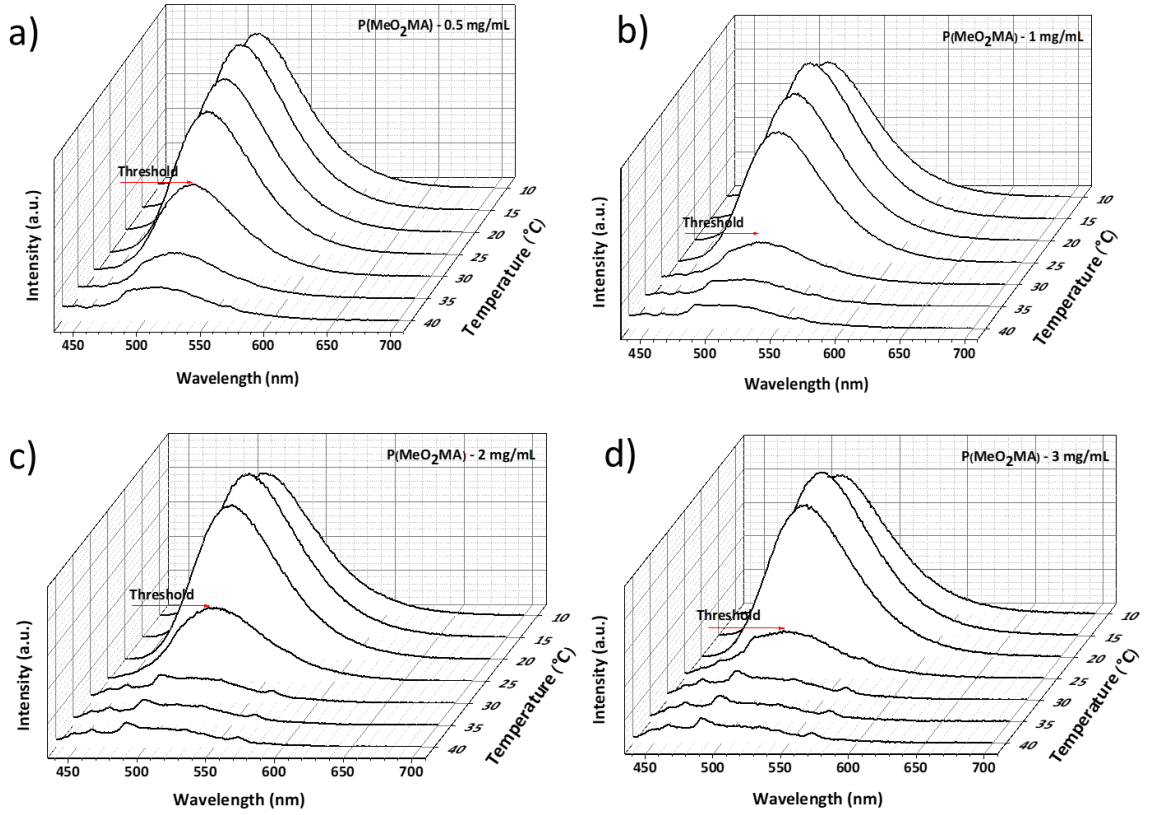

Figure S14. Fluorescence spectra in DW as a function of temperature for MEO_2MA. The polymer concentration was a) 0.5 mg/mL; b) 1 mg/mL; c) 2 and d) 3 mg/mL and the excitation wavelength were 415 nm, respectively.

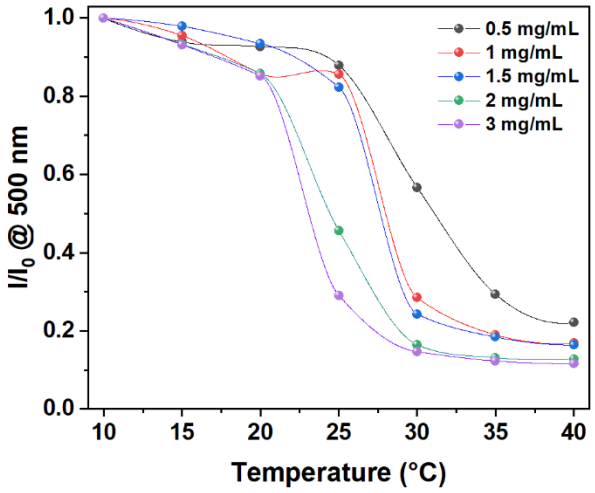

Figure S15. The I/I_0 ratio of emission intensities as function of temperature for P(MEO_2MA) at different polymer concentrations.

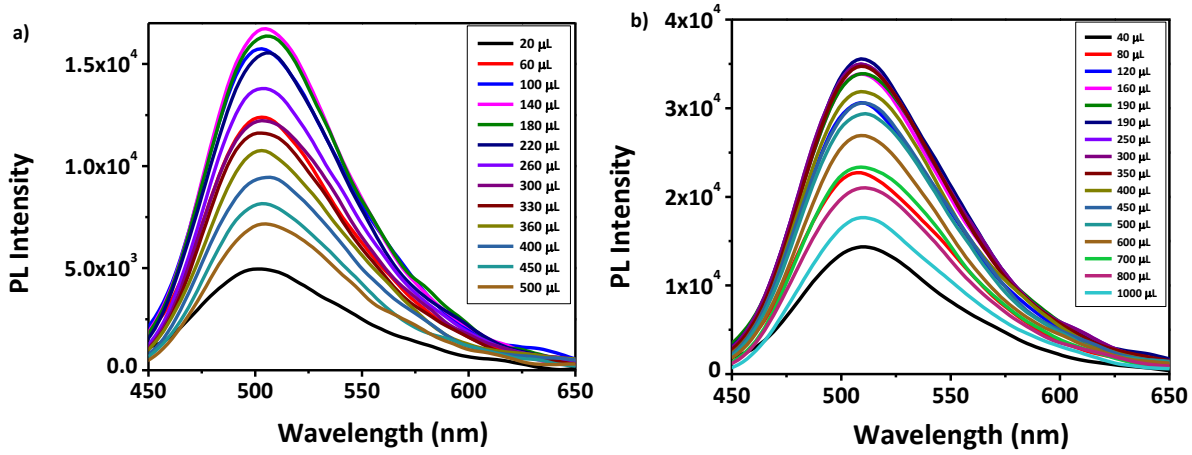

Figure S16. Fluorescence spectra (excitation wavelength 415 nm) of Cl-Dye-OH in a) Methanol and b) ethylene glycol at different concentration.