Electronic Supporting Information

Regio- and stereoselective construction of stimuli-responsive macromolecules by a sequential coupling-hydroamination polymerization route

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Fig. S3 Emission spectra of P**1**/**2**/**3a** in THF/water mixtures with different water fractions (f_w). Solution concentration: 10 μM; excitation wavelength: 360 nm.

Fig. S4 (A) Emission spectra of P**1**/**2**/**3a** in THF/water mixtures with different water fractions (f_w) acidified with 0.5 mM hydrochloric acid solution. (B) Plot of relative emission intensity (I/I_0) versus the composition of the acidified aqueous solution of P**1**/**2**/**3a**. Solution concentration: 10 μM; excitation wavelength: 360 nm.

Table S1 Crystal data and structure refinement for model compound **4**.

Empirical formula	$C_{39}H_{35}NO$	
Formula weight	533.68	
Temperature	99.9(2) K	
Wavelength	1.5418 Å	
Crystal system	Monoclinic	
Space group	P2(1)/c	
Unit cell dimensions	a = 19.39657(15) Å	α= 90°.
	b = 15.07422(12) Å	β= 98.9955(7)°.
	c = 10.42570(8) Å	γ = 90°.
Volume	3010.86(4) $Å^3$	
Z	4	
Density (calculated)	1.177 Mg/m^3	
Absorption coefficient	0.532 mm^{-1}	
F(000)	1136	
Crystal size	0.20 × 0.05 × 0.05 mm^3	
Theta range for data collection	4.62 to 68.00°.	
Index ranges	-23<=h<=23, -18<=k<=17, -8<=l<=12	
Reflections collected	22649	
Independent reflections	5446 [R(int) = 0.0124]	
Completeness to theta = 66.50°	99.93 %	
Absorption correction	Semi-empirical from equivalents	
Max. and min. transmission	1.00000 and 0.89792	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	5446 / 0 / 372	
Goodness-of-fit on F^2	1.005	
Final R indices [I>2sigma(I)]	R1 = 0.0314, wR2 = 0.0759	
R indices (all data)	R1 = 0.0347, wR2 = 0.0778	
Largest diff. peak and hole	0.187 and -0.190 $e.Å^{-3}$	

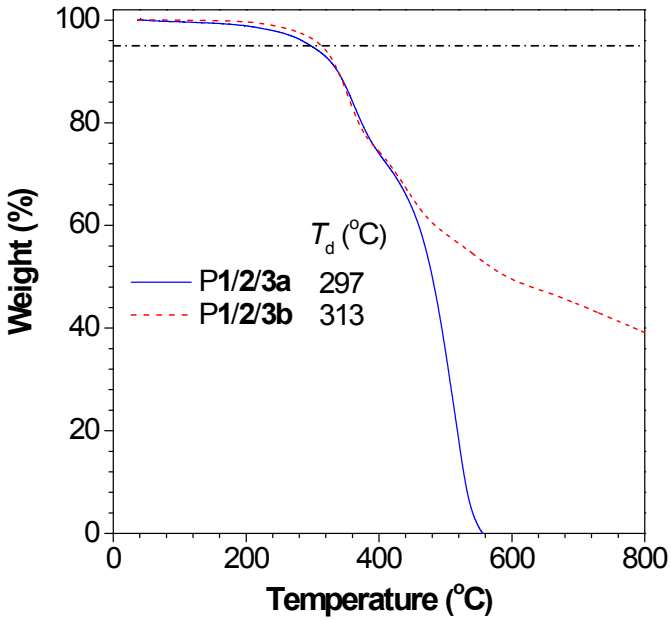

Fig. S1 TGA thermogram of P**1**/**2**/**3** recorded under nitrogen at a heating rate of 10 °C/ min.

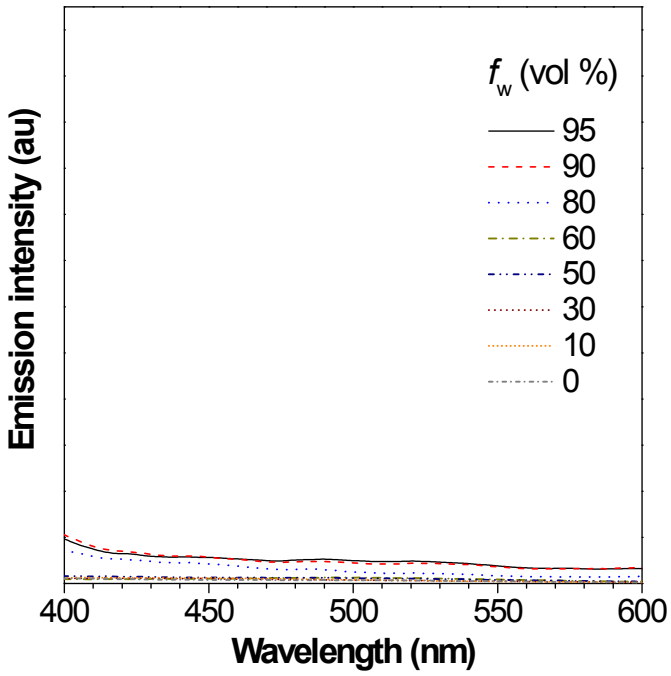

Fig. S2 Emission spectra of **4** in THF/water mixtures with different water fractions (f_w). Solution concentration: 10 μM; excitation wavelength: 330 nm.

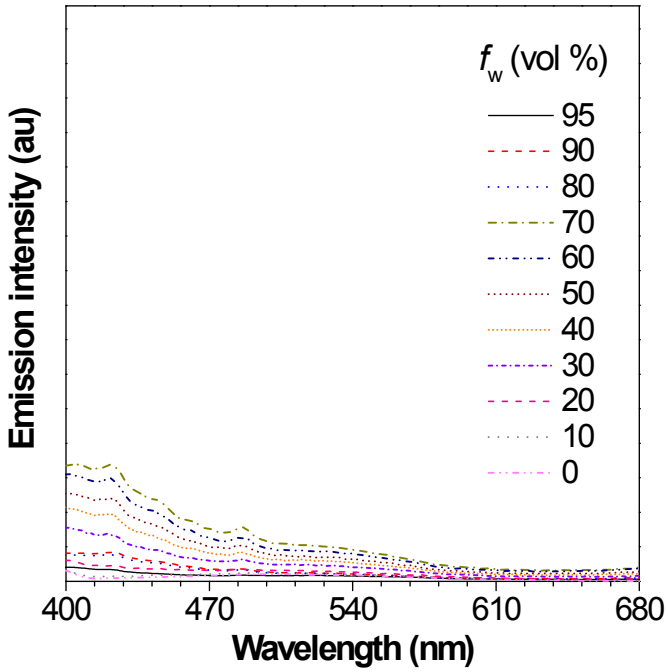

Fig. S3 Emission spectra of P**1**/**2**/**3a** in THF/water mixtures with different water fractions (f_w). Solution concentration: 10 μM; excitation wavelength: 360 nm.

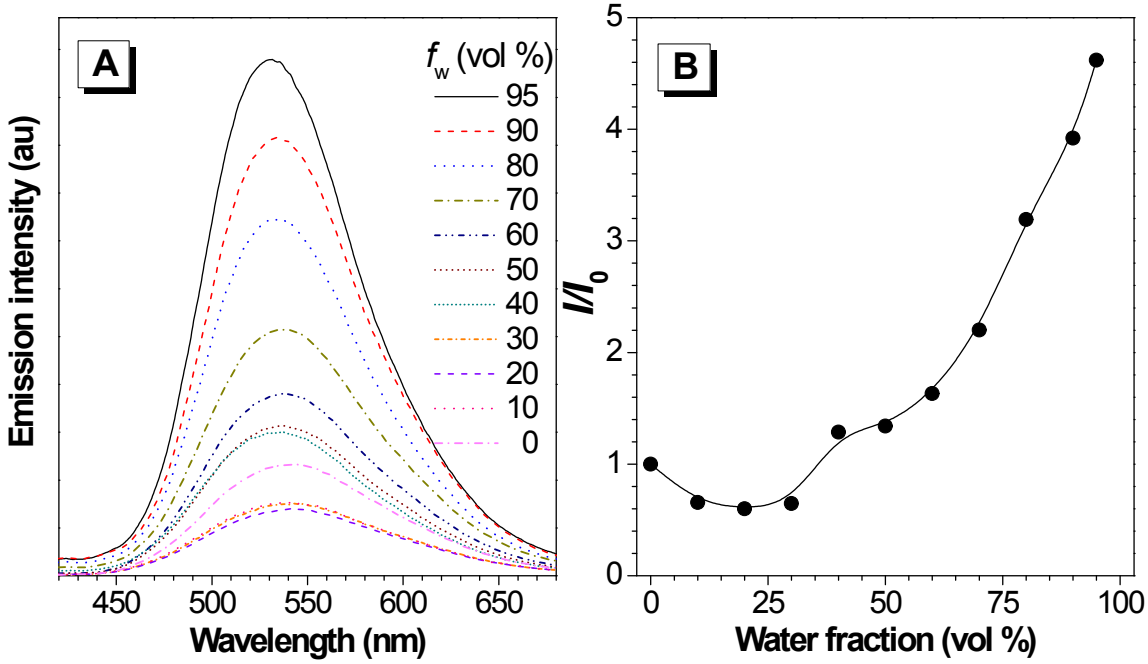

Fig. S4 (A) Emission spectra of P**1**/**2**/**3a** in THF/water mixtures with different water fractions (f_w) acidified with 0.5 mM hydrochloric acid solution. (B) Plot of relative emission intensity (I/I_0) versus the composition of the acidified aqueous solution of P**1**/**2**/**3a**. Solution concentration: 10 μM; excitation wavelength: 360 nm.