Electronic Supplementary Material (ESI) for Polymer Chemistry.

Supporting Information

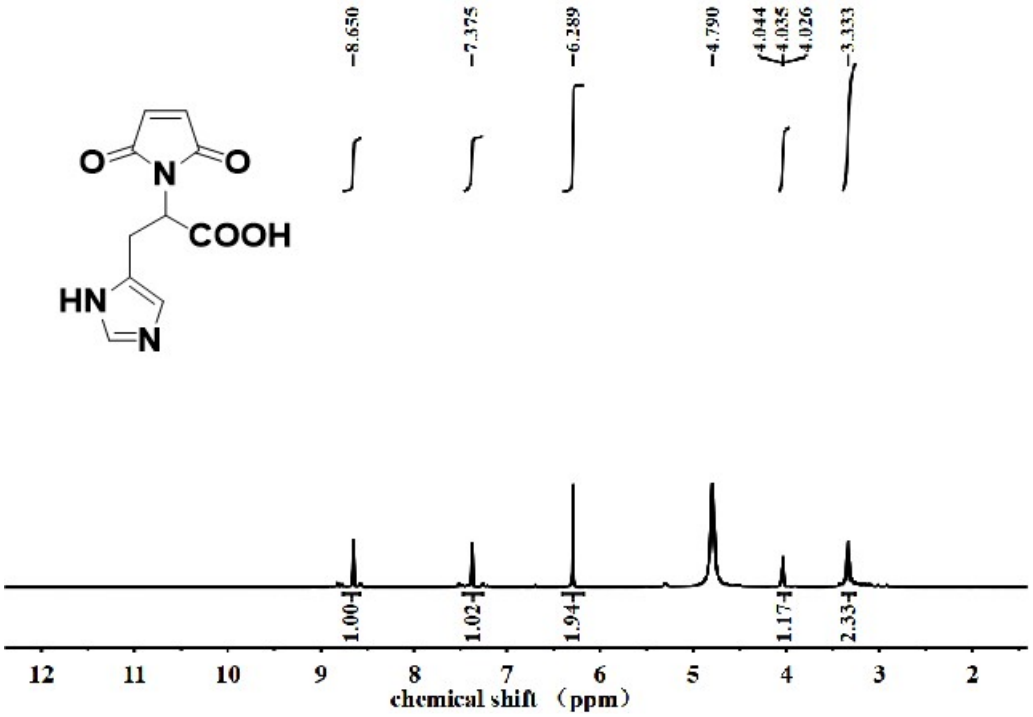


Figure S1. ^{1}H NMR spectra of compound HMI in D2O.

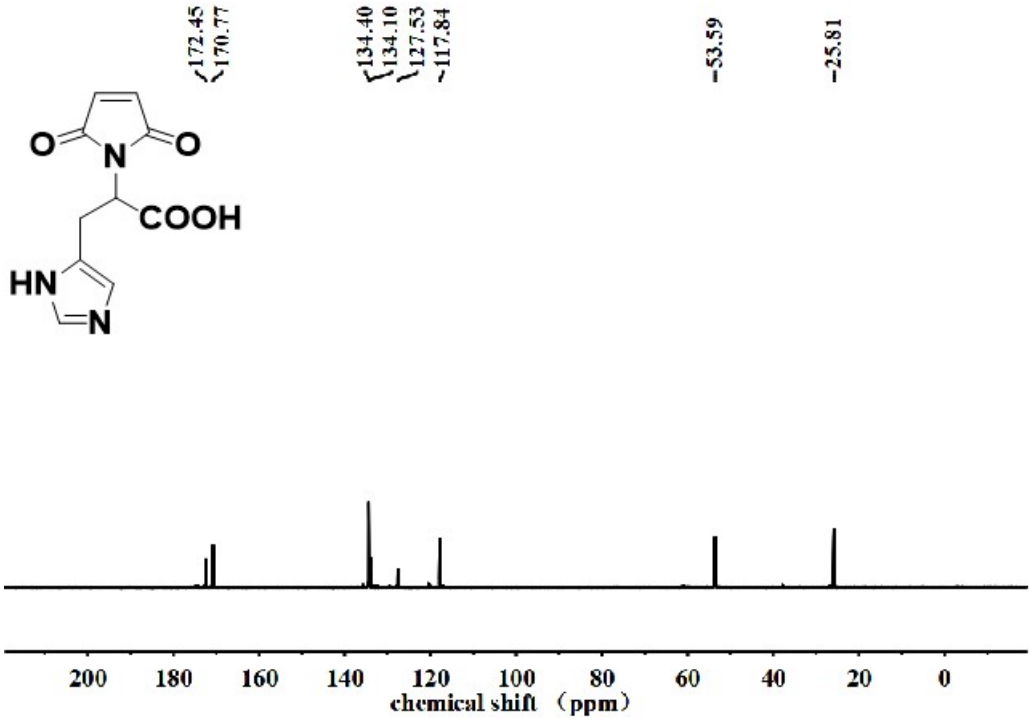


Figure S2. ^{13}C NMR spectra of compound HMI in D2O.

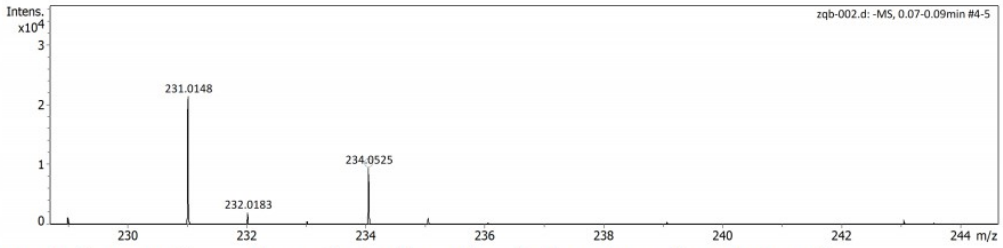
Mass Spectrum SmartFormula Report

Analysis Info

Analysis Name	C:\Users\breeze\Desktop\zqb-002.d	Acquisition Date	2022/7/7 12:07:03
Method	DirectInfusion - MS - positive.m		
Sample Name		Operator	Demo User
Comment		Instrument	impact II 1825265.10221

Acquisition Parameter

Source Type	ESI	Ion Polarity	Negative	Set Nebulizer	0.4 Bar
Focus	Active	Set Capillary	3000 V	Set Dry Heater	180 °C
Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	4.0 l/min
Scan End	1300 m/z	Set Charging Voltage	2000 V	Set Divert Valve	Source
		Set Corona	0 nA	Set APCI Heater	0 °C



Meas. m/z	#	Ion Formula	m/z	err [ppm]	Adduct	mSigma	# mSigma	Score	rdb	e¡¥ Conf	N-Rule
234.0525	1	C10H8N3O4	234.0520	-1.8	M-H	n.a.	1	100.00	8.0	even	ok

Figure S3. TOF-MS spectra of HMI

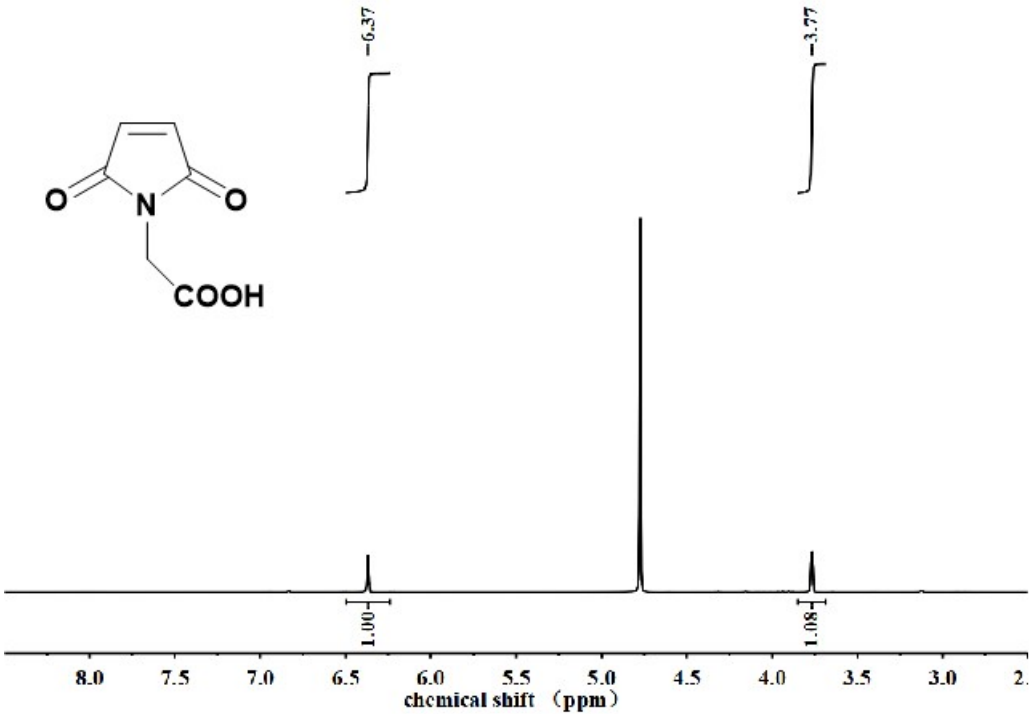


Figure S4. ^{1}H NMR spectra of compound GMI in D_2O

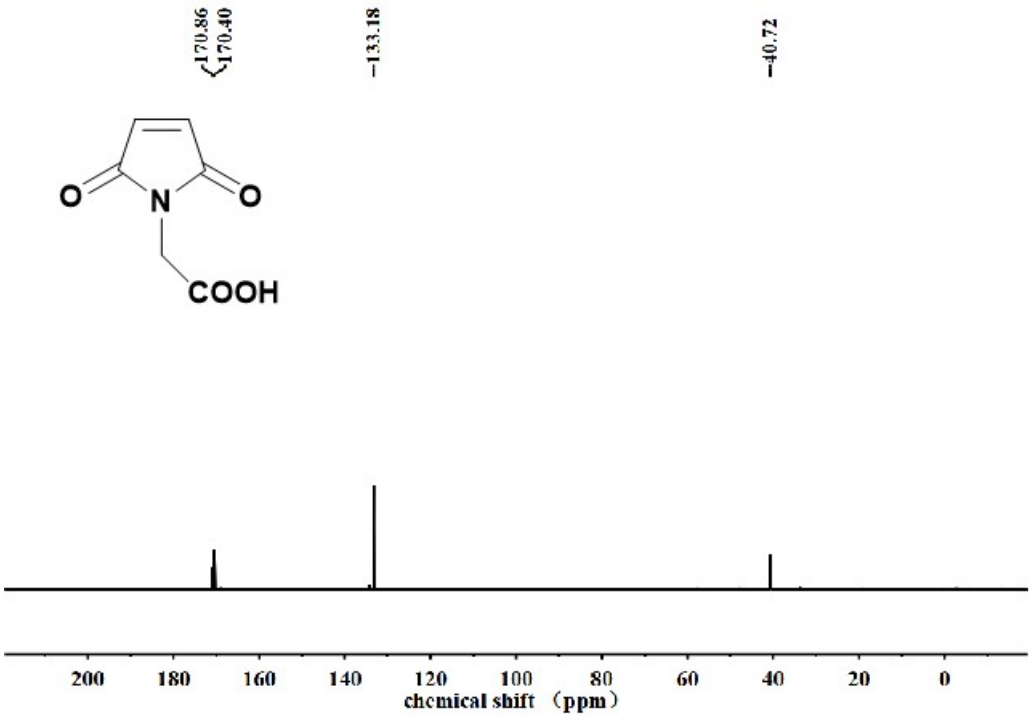


Figure S5. ^{13}C NMR spectra of GMI in D_2O.

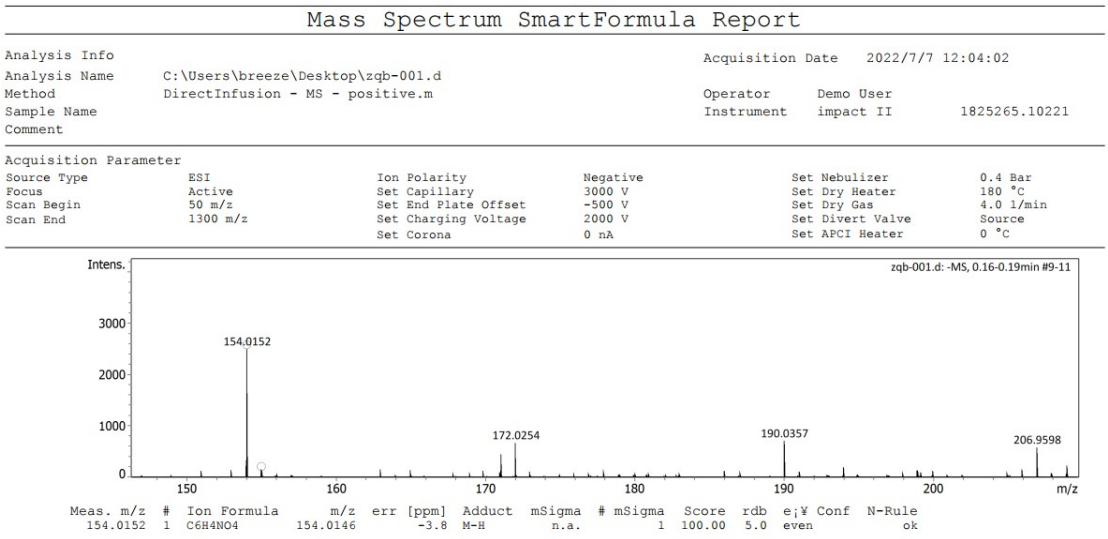


Figure S6. TOF-MS spectra of GMI

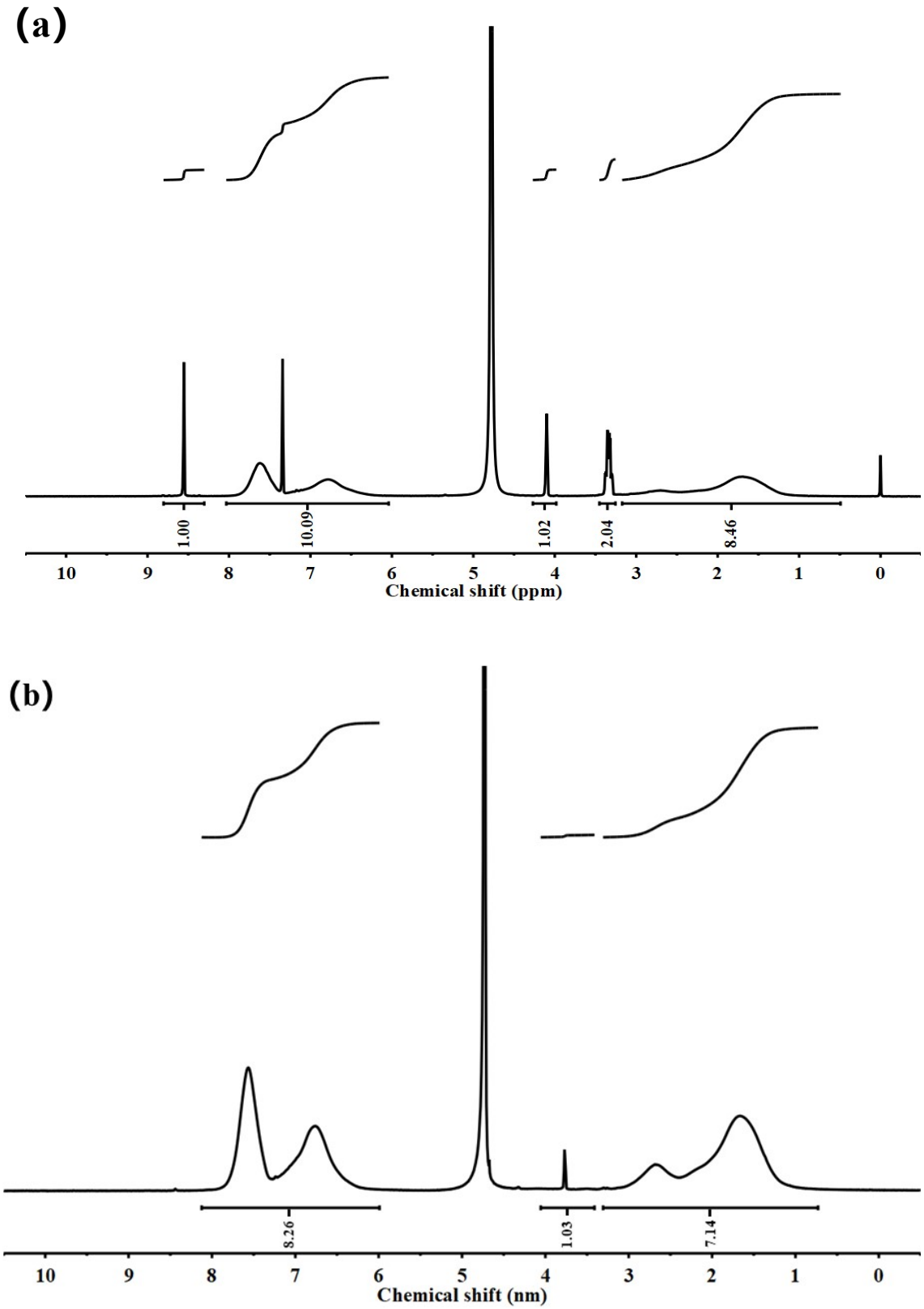


Figure S7. ^{1}H NMR spectra of compound P1 (a) and P2 (b) in D_2O.

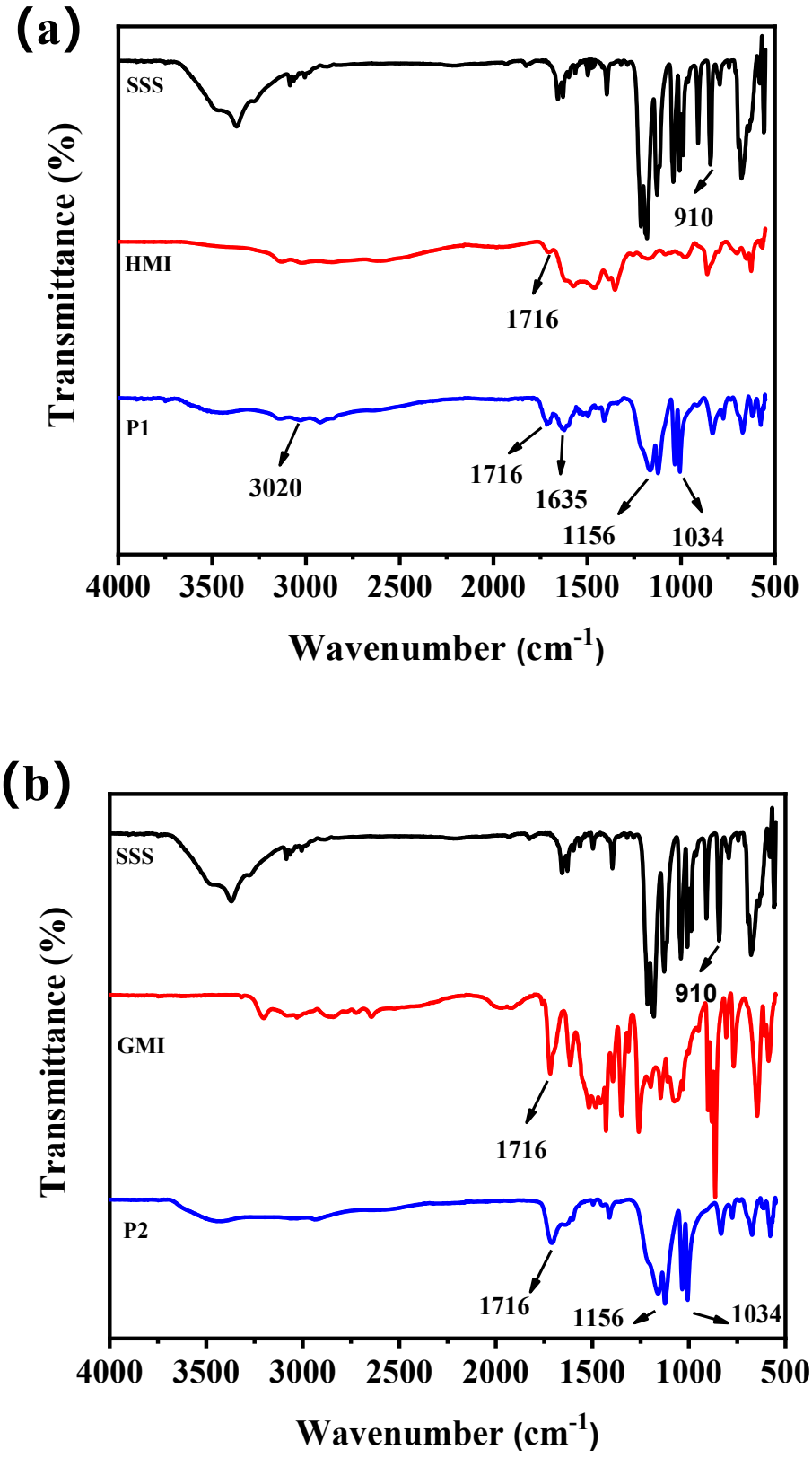


Figure S8. Typical FT-IR spectra of SSS, HMI and copolymers P1 (a); SSS, GMI and copolymers P2 (b).

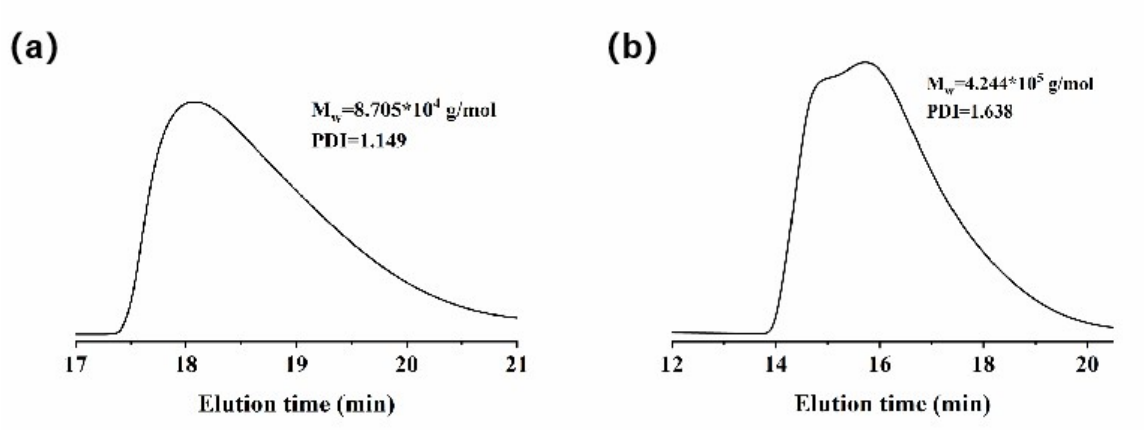


Figure S9. (a) GPC trace of P1 and (b) P2.

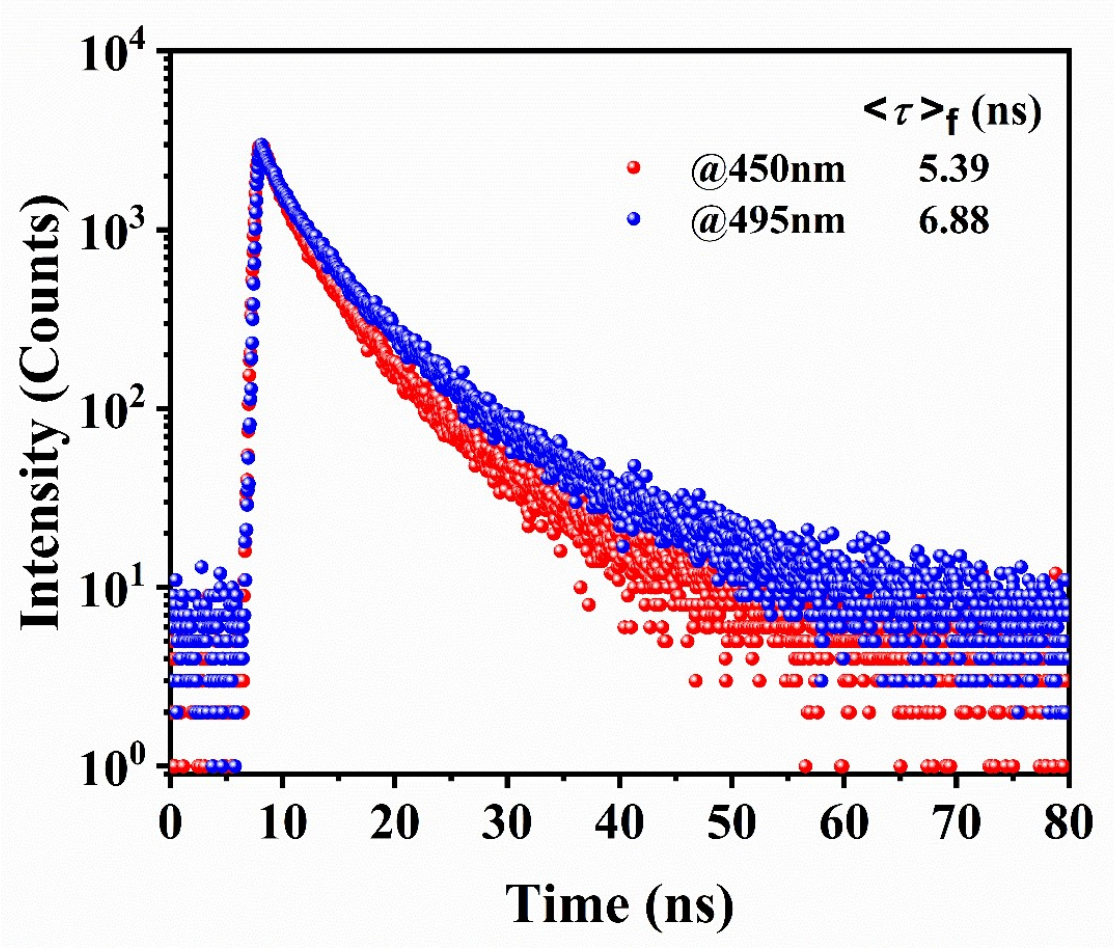


Figure S10. Fluorescence lifetimes measured at 450 and 495 nm (λ_{ex} = 365 nm) for P1 solid powder.

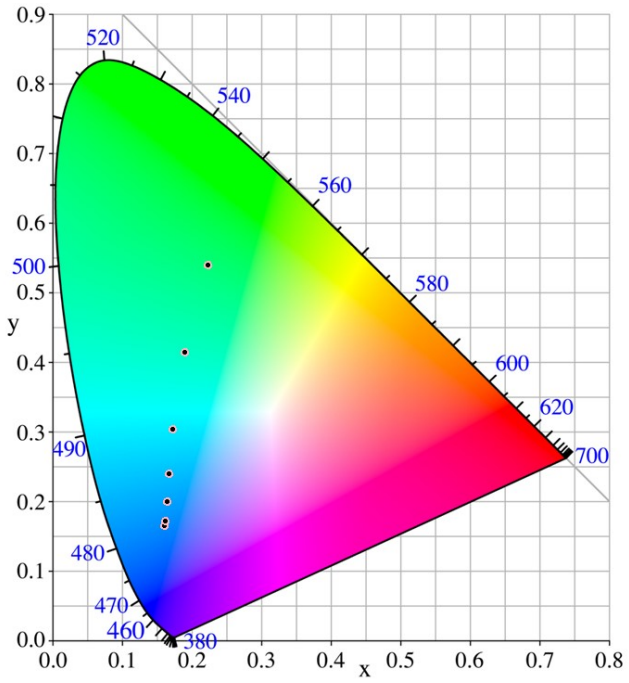


Figure S11. CIE coordinates of P1 powder fluorescence emission with different excitation wavelengths.

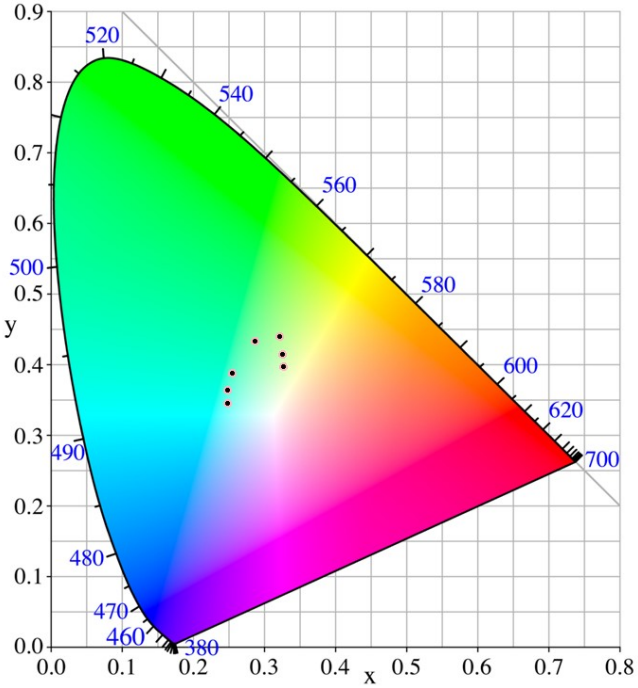


Figure S12. CIE coordinates of P1 powder phosphorescence emission with different excitation wavelengths.

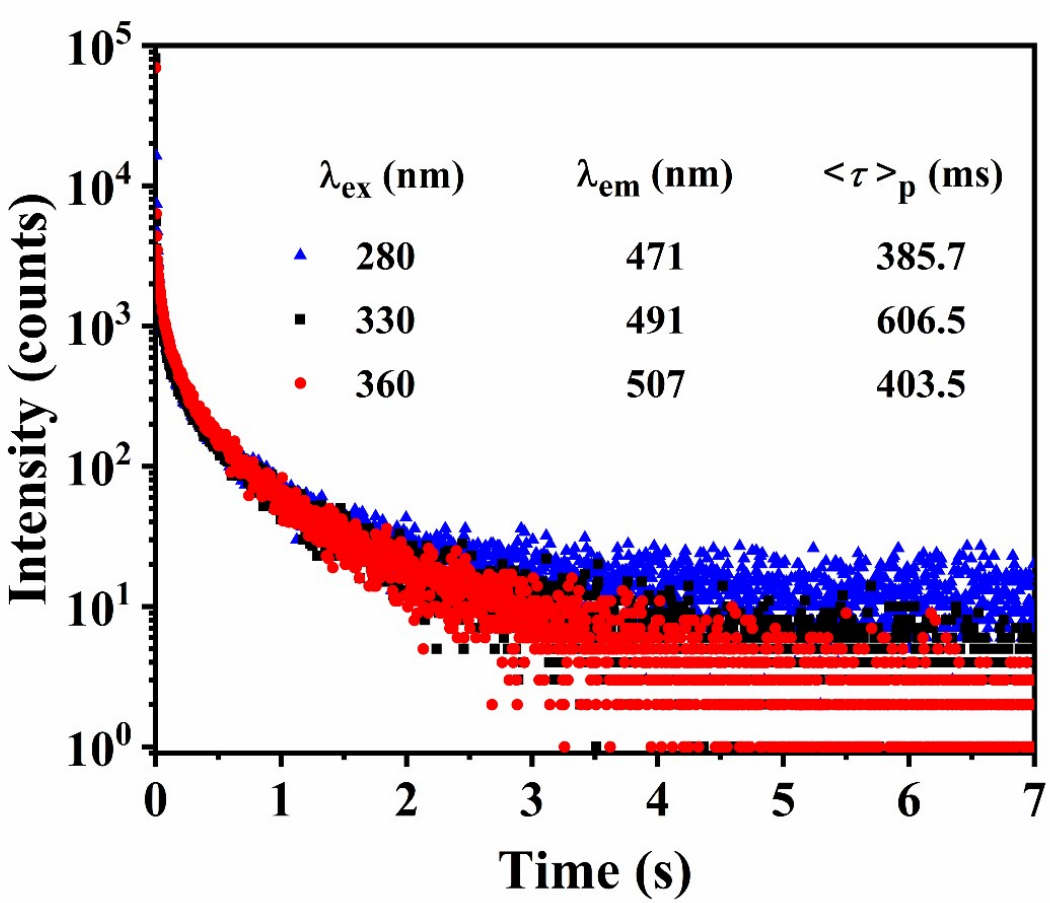


Figure 13. RTP lifetime profiles of P1

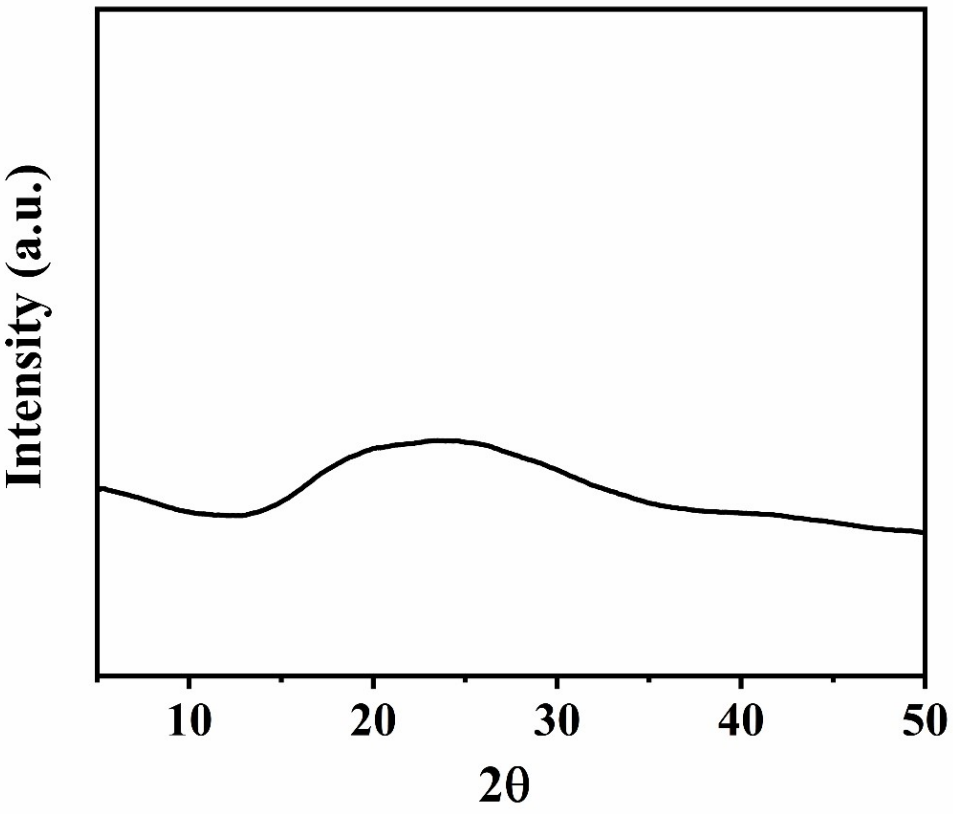


Figure S14. XRD patterns of P1.

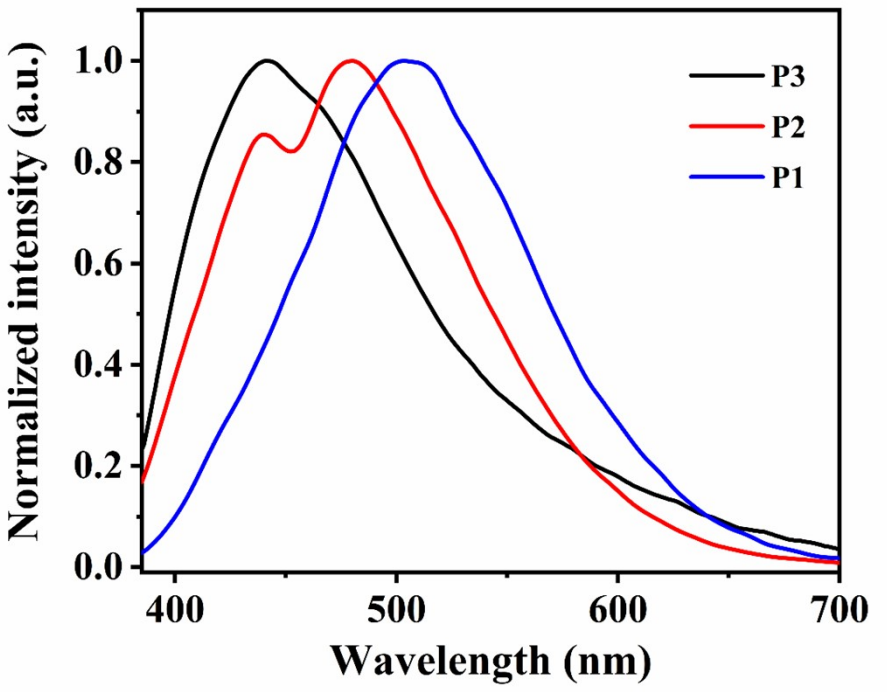


Figure S15. phosphorescence emission spectra of P1, P2, and P3.

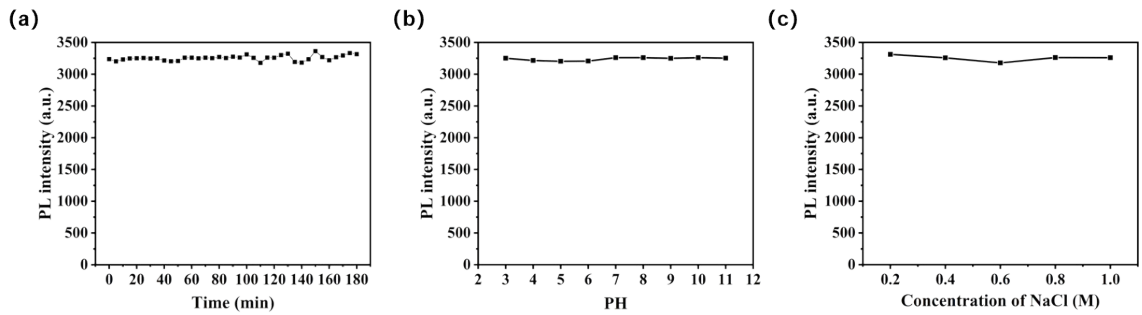


Figure S16. Stability research of polymer P1 in the (a) 365 nm UV irradiation time, (b) PH value, (c) ionic strength.

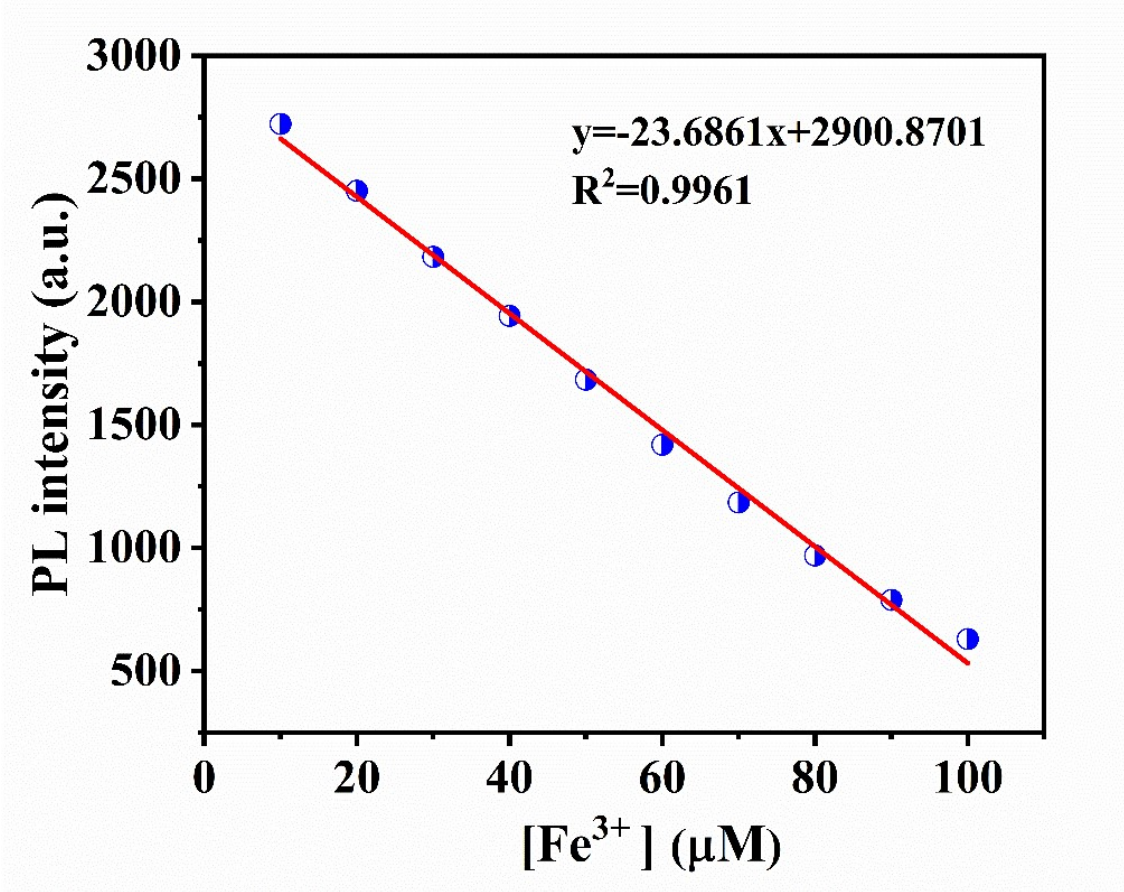


Figure S17. Relationship between the emission intensity of P1 (20 mg/mL) and Fe^{3+} -ion concentration.

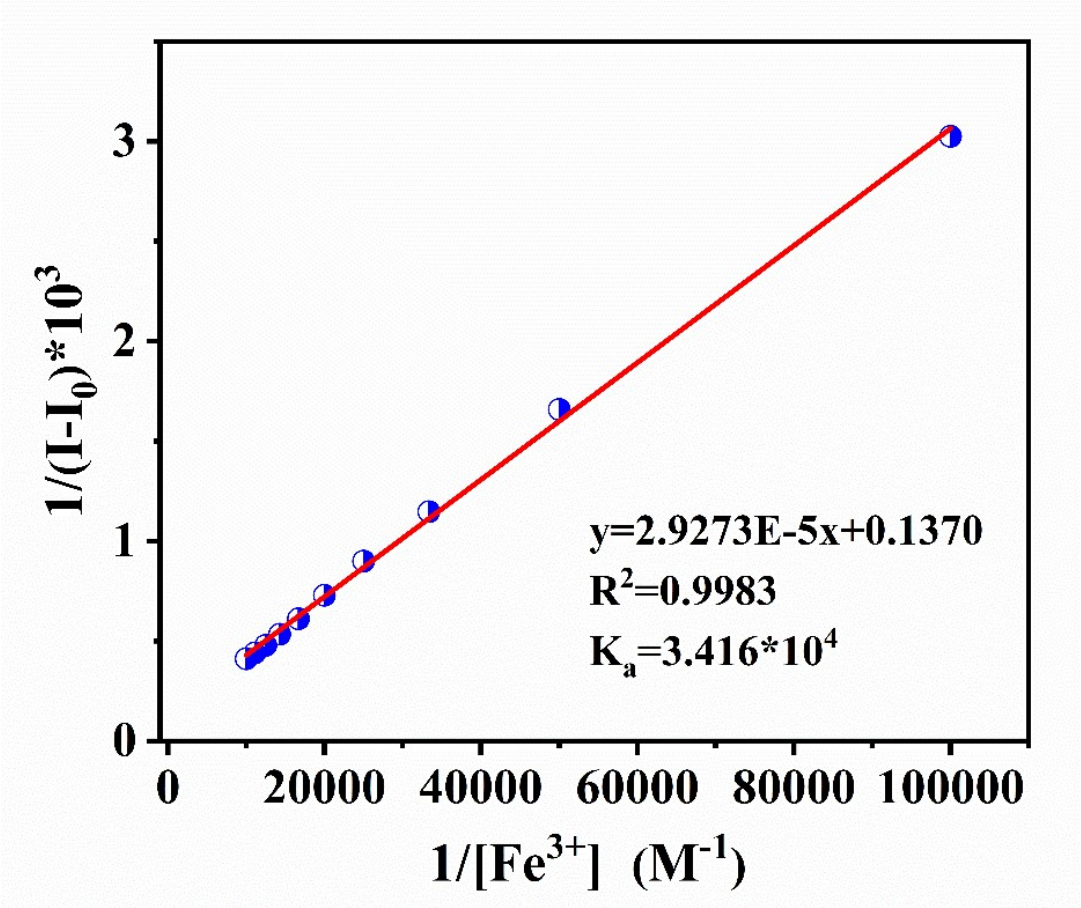


Figure S18. Benesi-Hildebrand plot for the 1:1 stoichiometric complex between of P1 solutions with Fe^{3+}.

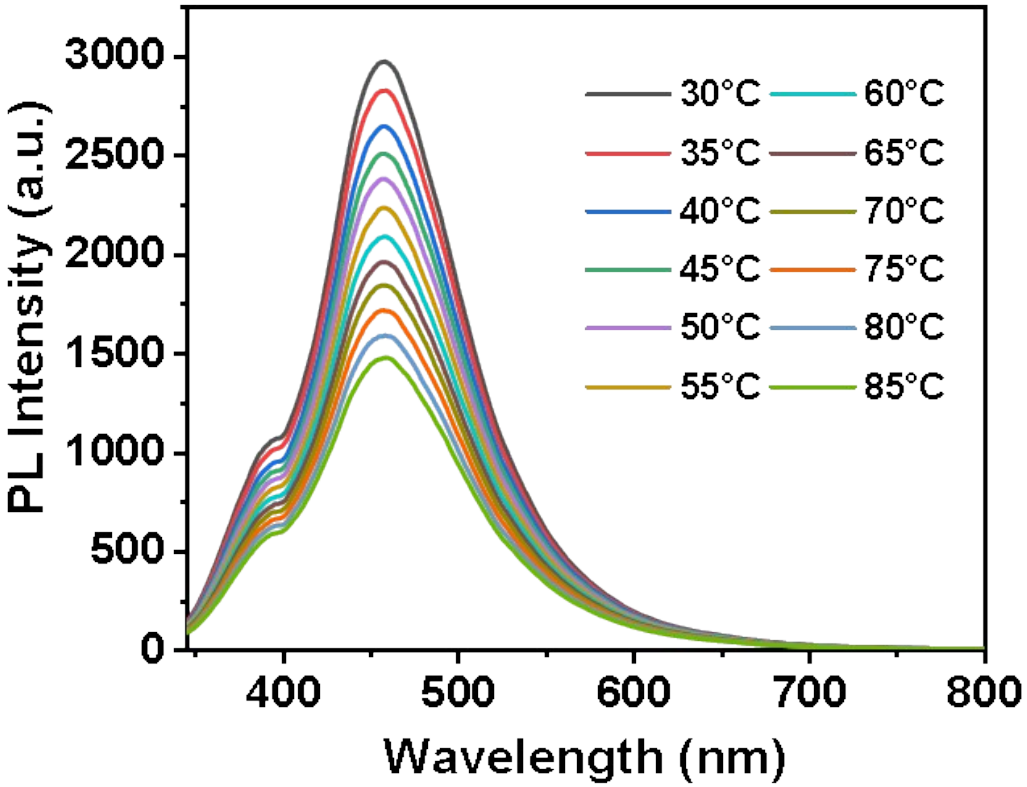


Figure S19. PL spectra of P1 solutions with different temperature

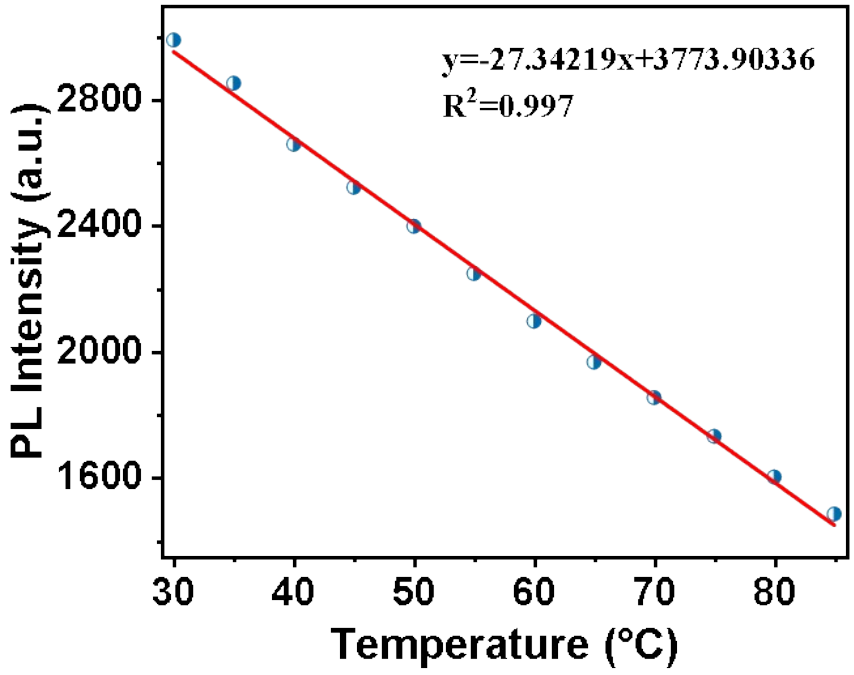


Figure S20. The linear relationship between the emission intensity of P1 and temperature.