Novel Water Soluble Cyclodextrin-Based Conjugated Polymer for Selective Host-Guest Interactions of Cationic Surfactant CTAB and Reverse FRET with Rhodamine B Tagged Adamantyl Guest

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^{1}H NMR Spectra and ^{13}CNMR spectra of small molecule intermediates, P0 GPC data, PL intensity changes of P1 in the presence of SDS, Triton X 100, DTAB, DOTAB and bar diagram demonstrating the PL intensity of P1 in the presence of various metal ions in water.

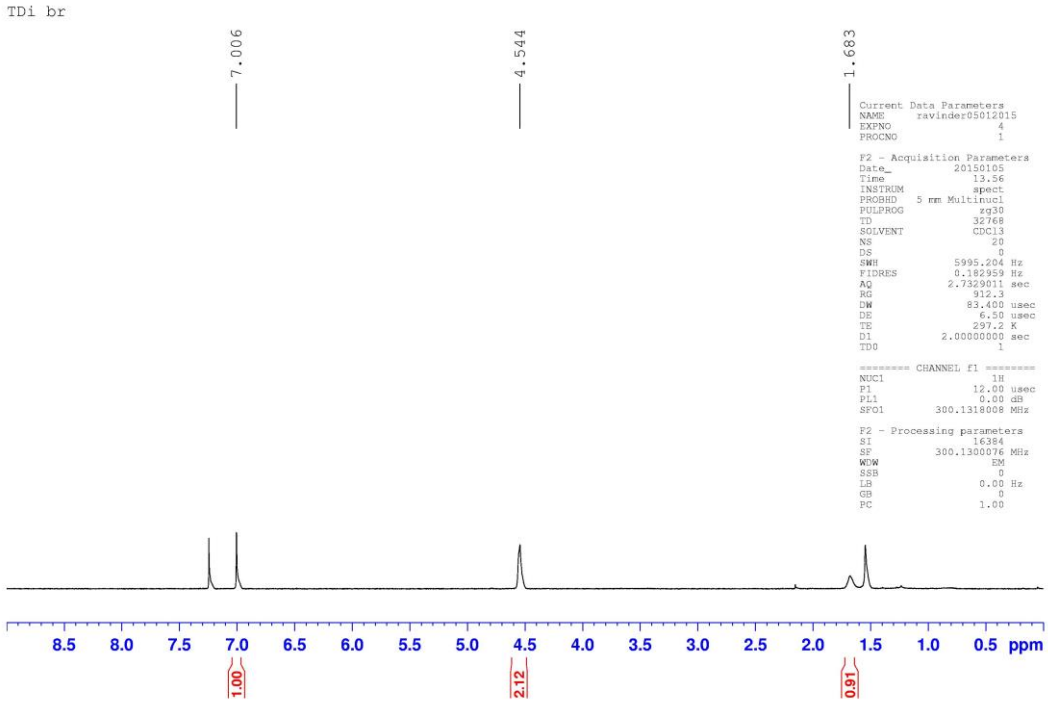


Figure S1. ^{1}H NMR spectrum of **1**.

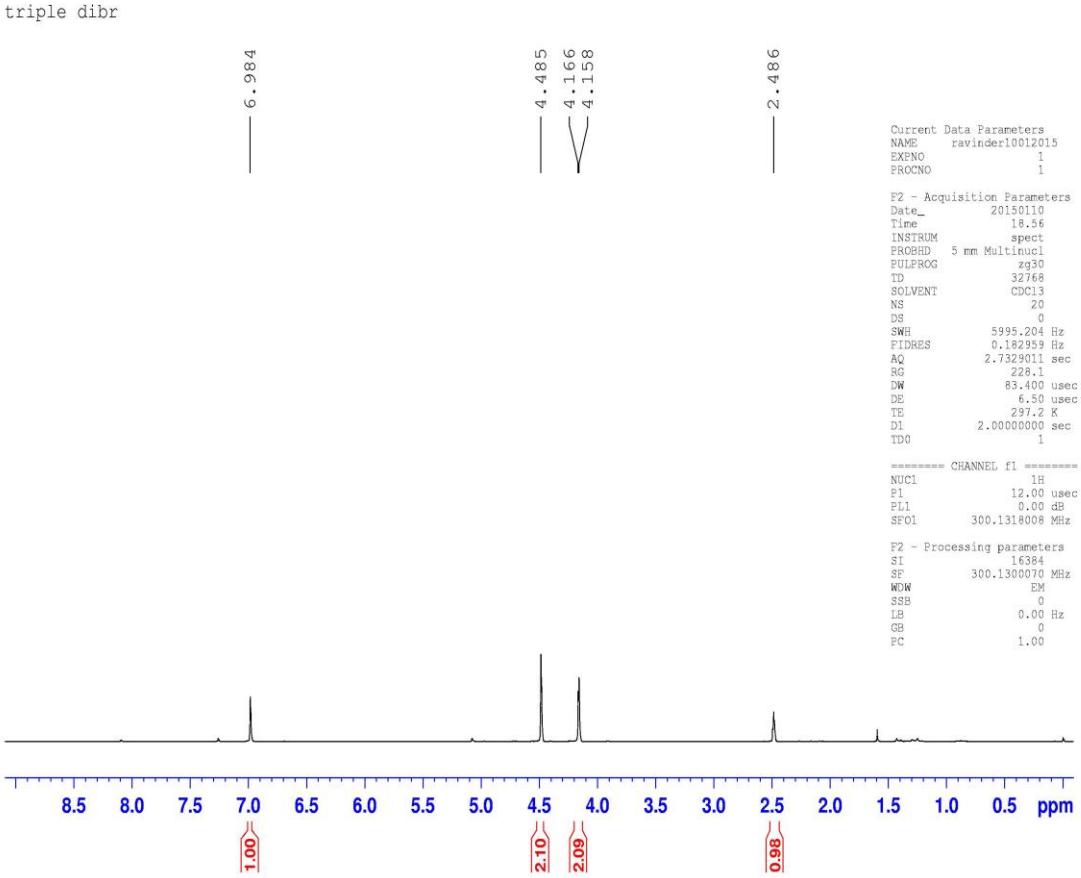


Figure S2. ^{1}H NMR spectrum of **2**.

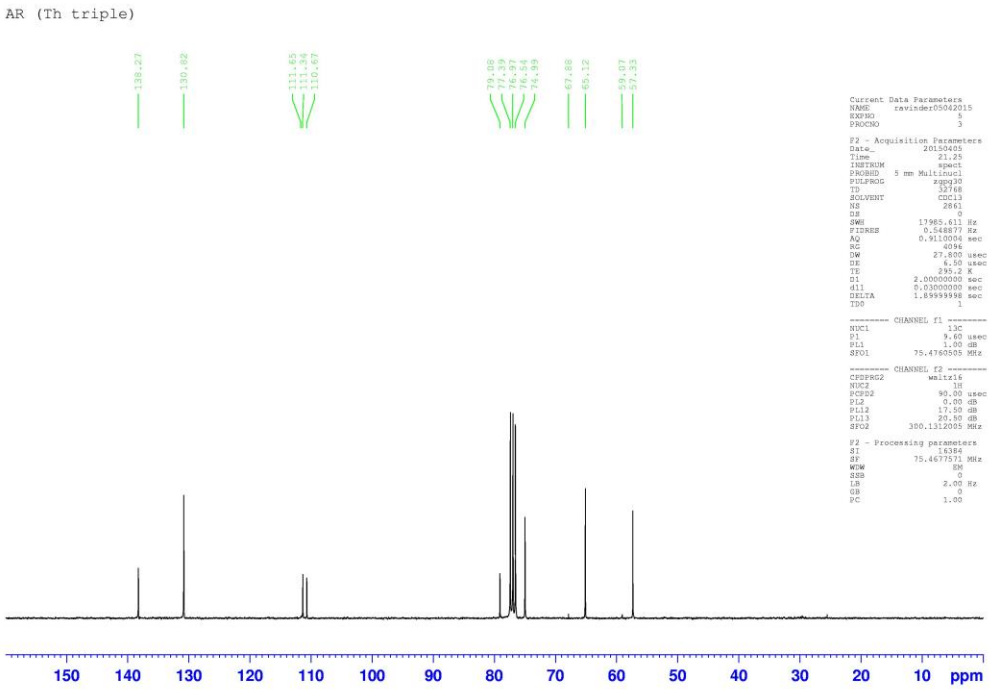


Figure S3. ^{13}C NMR spectrum of **2**.

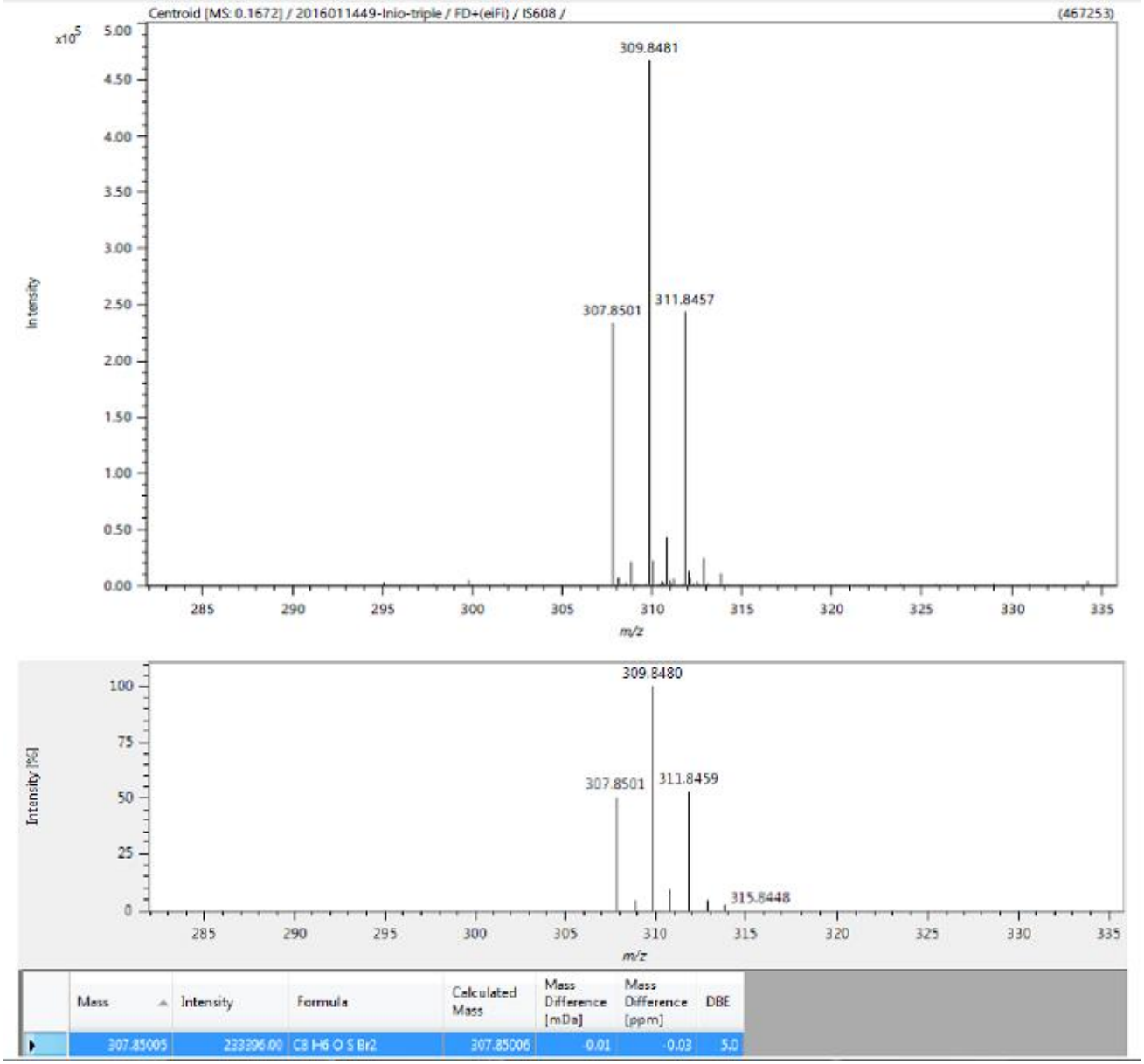


Figure S4. HRFD-MS data of **2**.

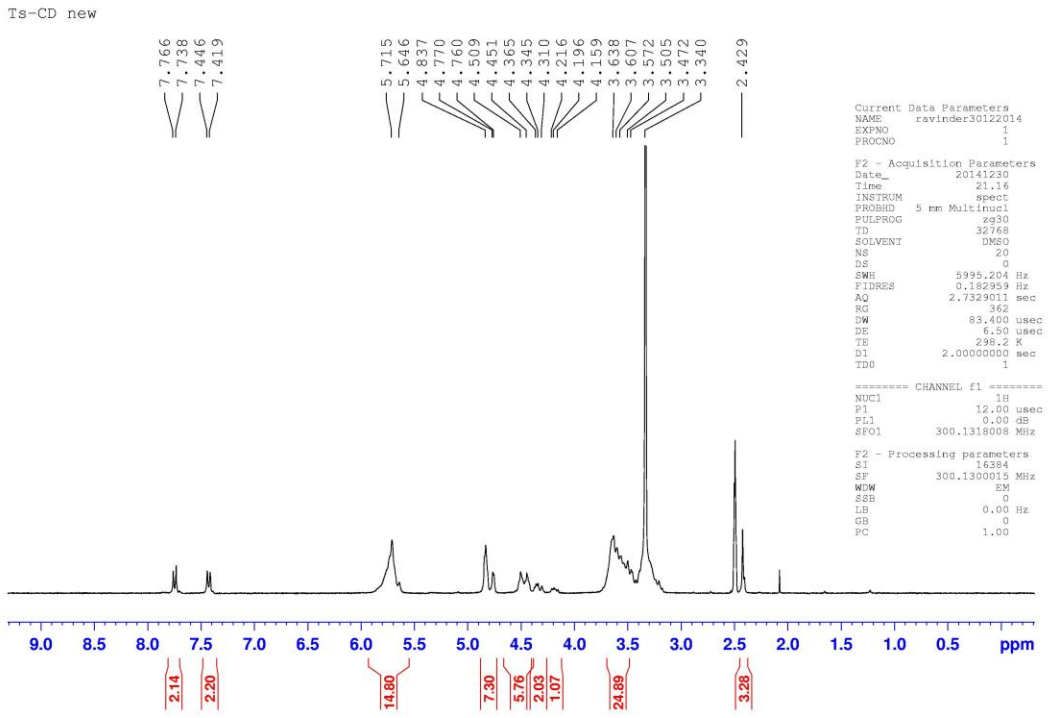


Figure S5. ^{1}H NMR spectrum of **Ts-CD**.

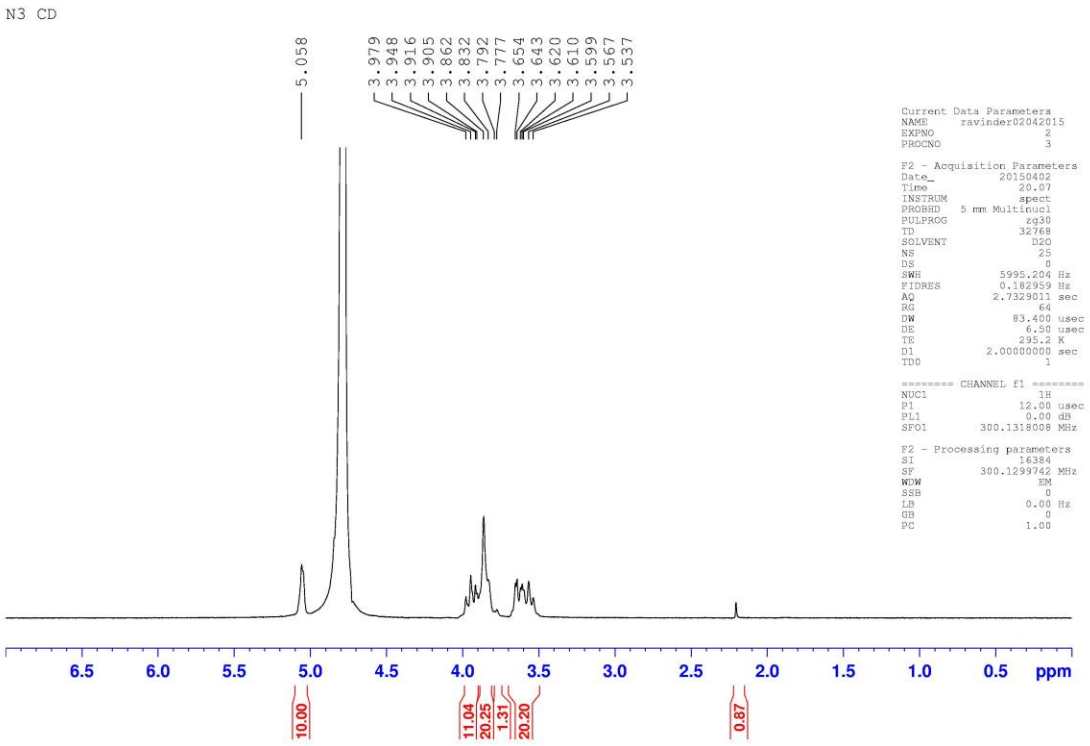


Figure S6. ^{1}H NMR spectrum of **N3-CD**.

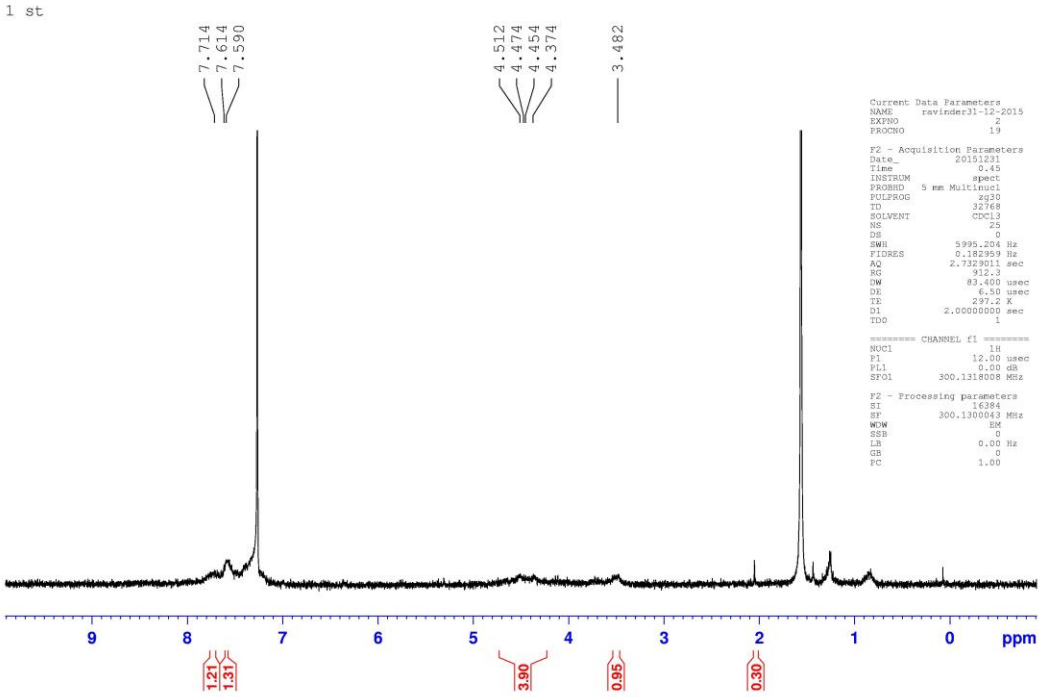


Figure S7. ^{1}H NMR spectrum of **P0**.

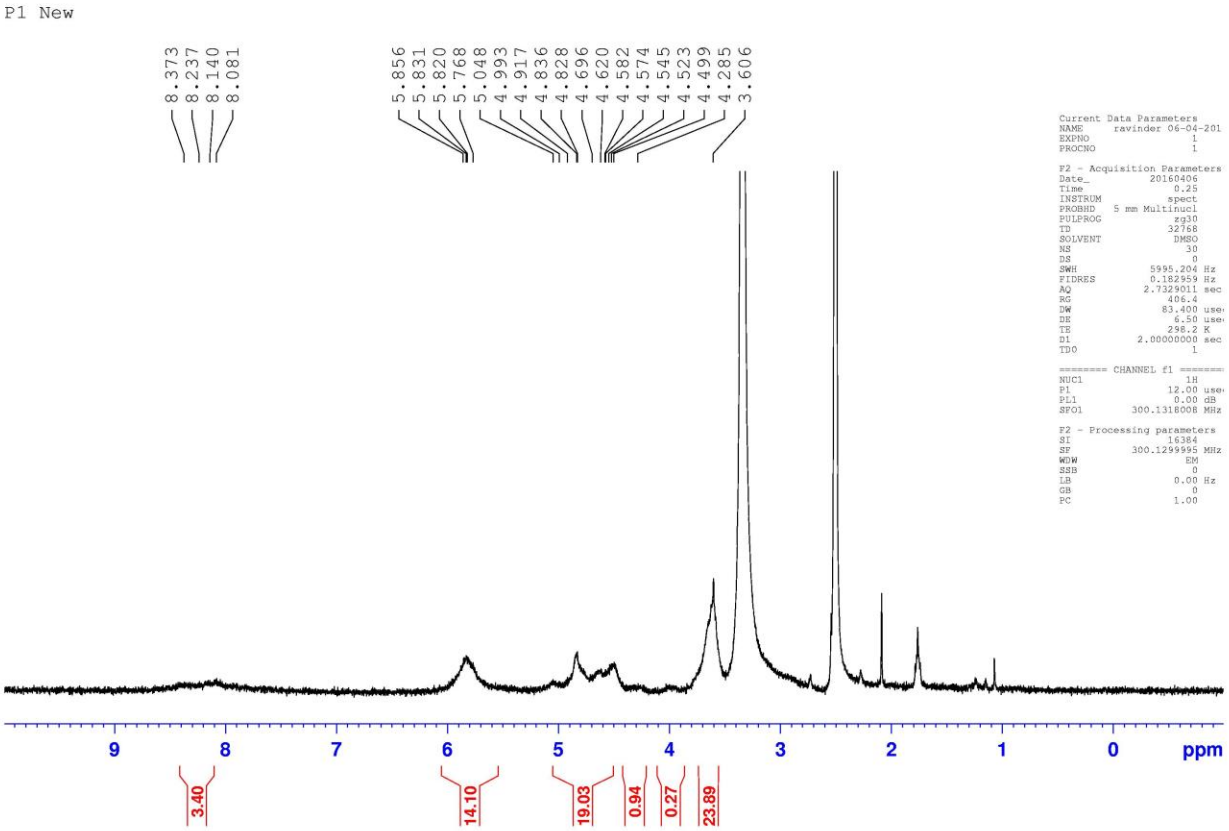


Figure S8. ^{1}H NMR spectrum of **P1**.

Waters

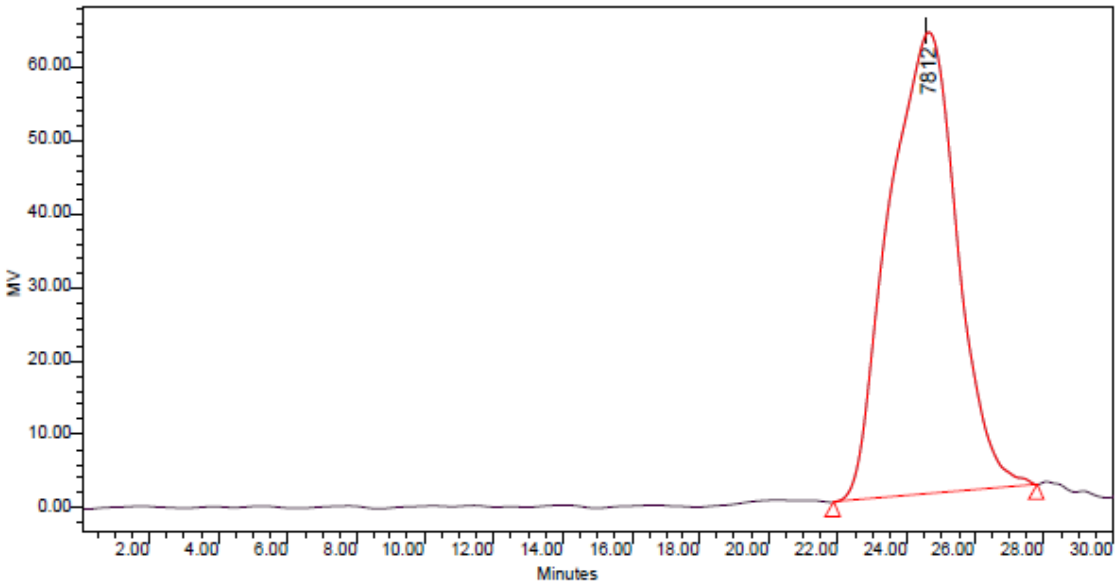
Project Name: HCLIN
Reported by User: System

Breeze

SAMPLE INFORMATION

Sample Name:	Unk	Acquired By:	System	
Sample Type:	Broad Unknown	Date Acquired:	2015/8/28	02:36:36
Vial:	1	Acq. Method:	THF_40_1	
Injection #:	1	Date Processed:	2015/8/28	03:08:12
Injection Volume:	200.00 ul	Channel Name:	410	
Run Time:	30.00 Minutes	Sample Set Name:	20150828_joven	

Autoscaled Chromatogram



GPC Results

	Dist Name	Elution Volume (ml)	Retention Time (min)	Adjusted RT (min)	Mn	Mw	MP	Mz	Mz+1	Mz/Mw	Mz+1/Mw
1		24.618	24.618	24.618	7839	10040	7812	12733	15565	1.268237	1.550300

GPC Results

	Area (*sec)	% Area	Height ( )	% Height	Integration Type	Peak Codes	Points Across Peak	Start Time (min)	End Time (min)	Baseline Start (min)
1	8682384	100.00	62778	100.00	BB		354	21.850	27.767	21.850

GPC Results

	Baseline End (min)	Slope (/sec)	Offset ( )
1	27.767	4.034762e-001	-7.842337e+000

Figure S9. GPC data of **P0.**

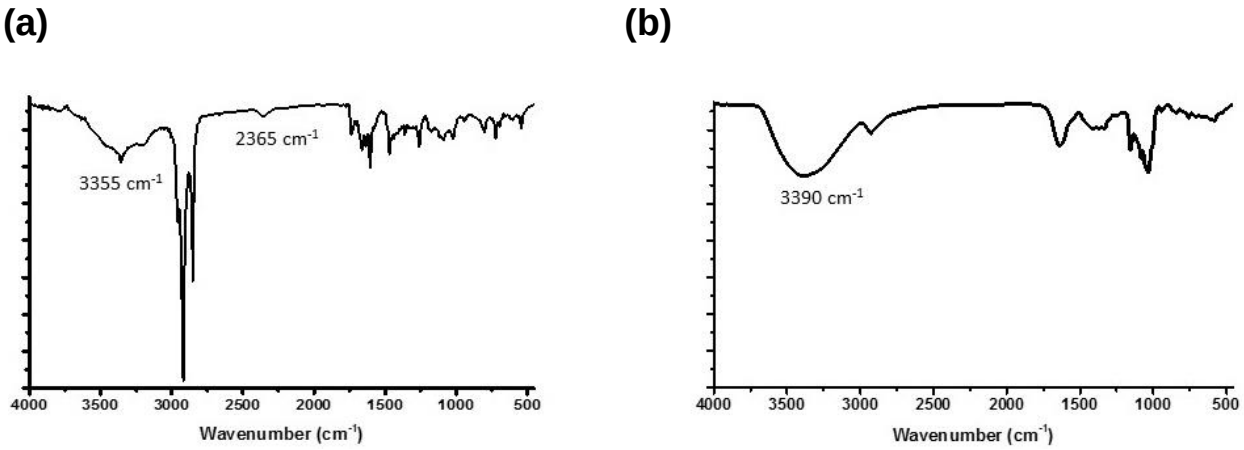


Figure S10. FT-IR spectra of (a) **P0** and (b) **P1**.

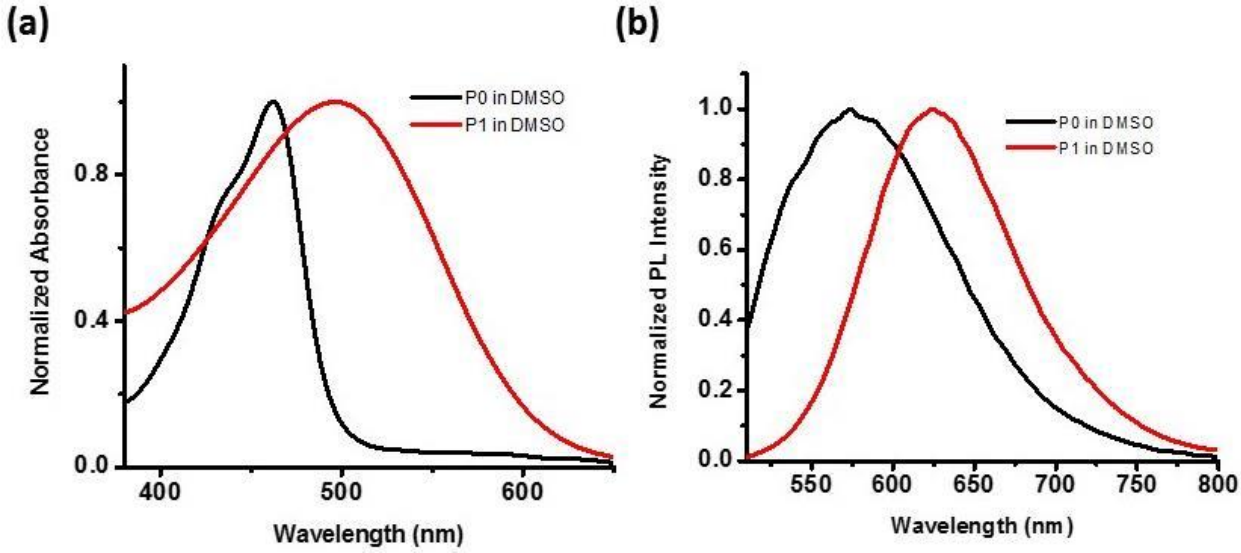


Figure S11. Normalized (a) Absorption and (b) PL spectra of **P0** and **P1** in DMSO.

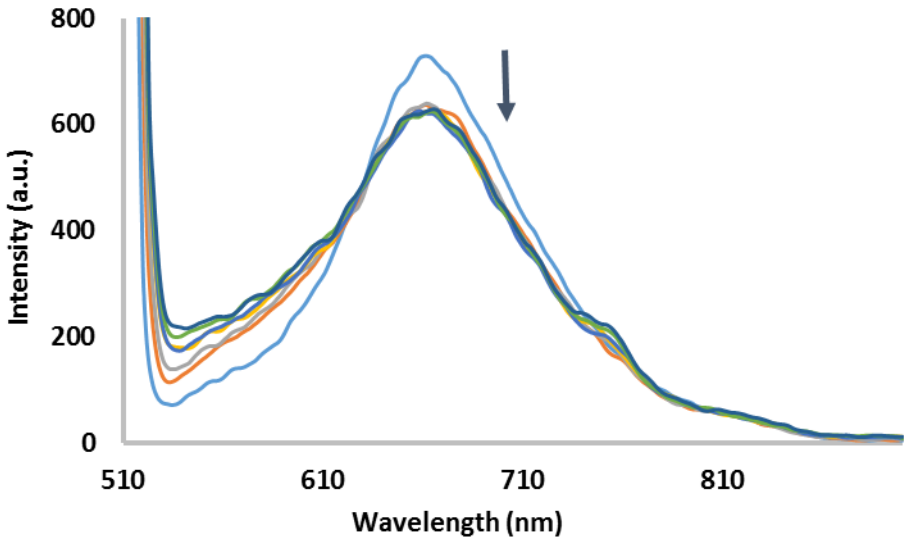


Figure S12. PL spectra of **P1** (10 μM) in the presence of 10 equivalents of SDS in water.

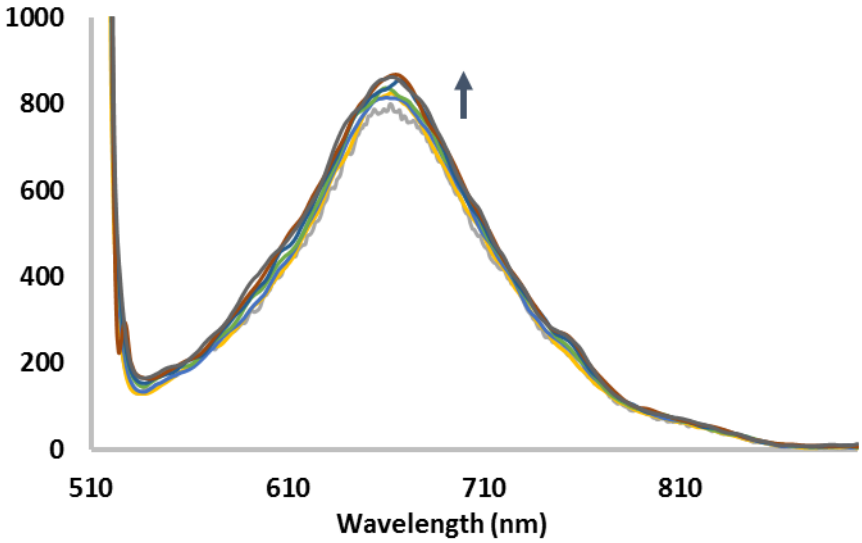


Figure S13. PL spectra of **P1** (10 μM) in the presence of 10 equivalents of Triton X 100 in water.

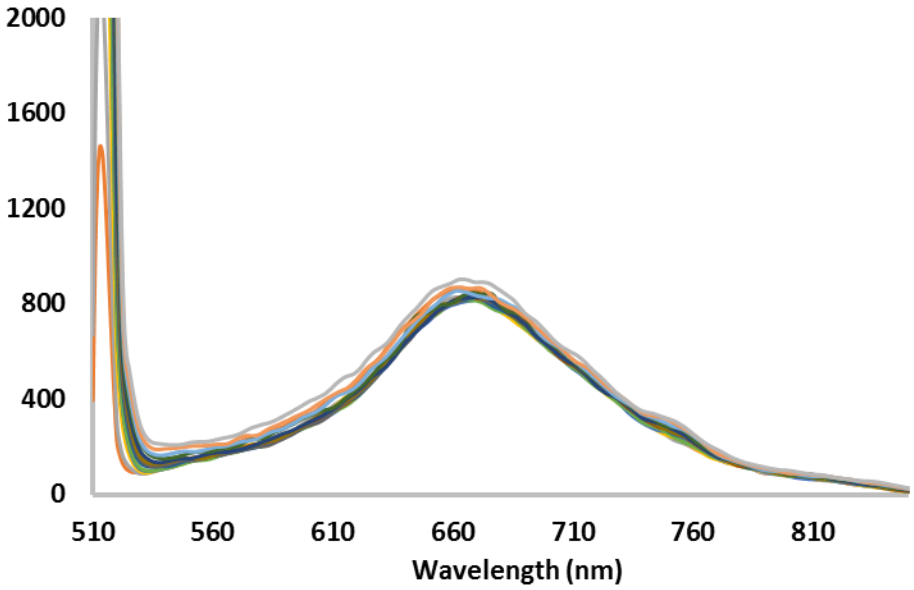


Figure S14. PL spectra of **P1** (10 μM) in the presence of 10 equivalents of DTAB in water.

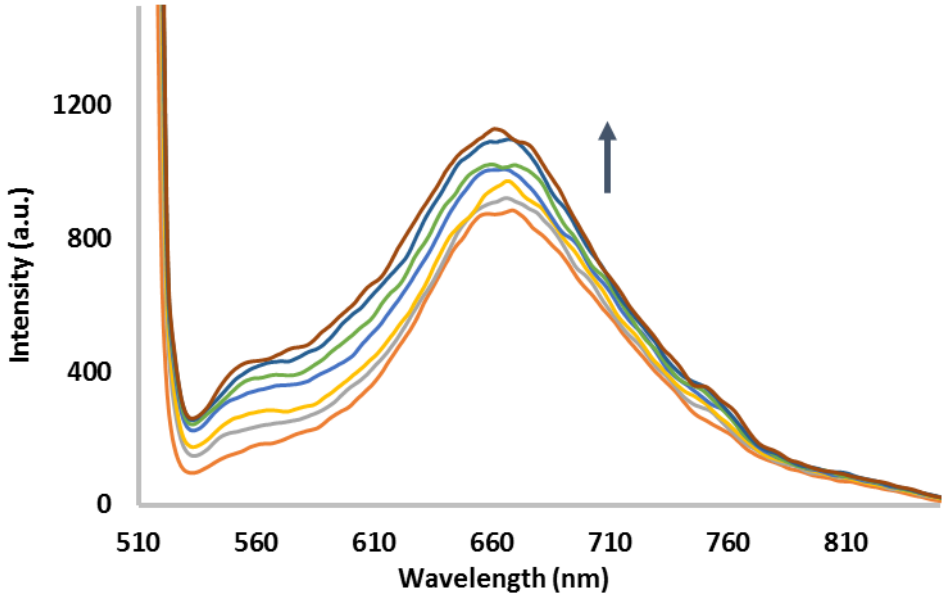


Figure S15. PL spectra of **P1** (10 μM) in the presence of 10 equivalents of DOTAB in water.

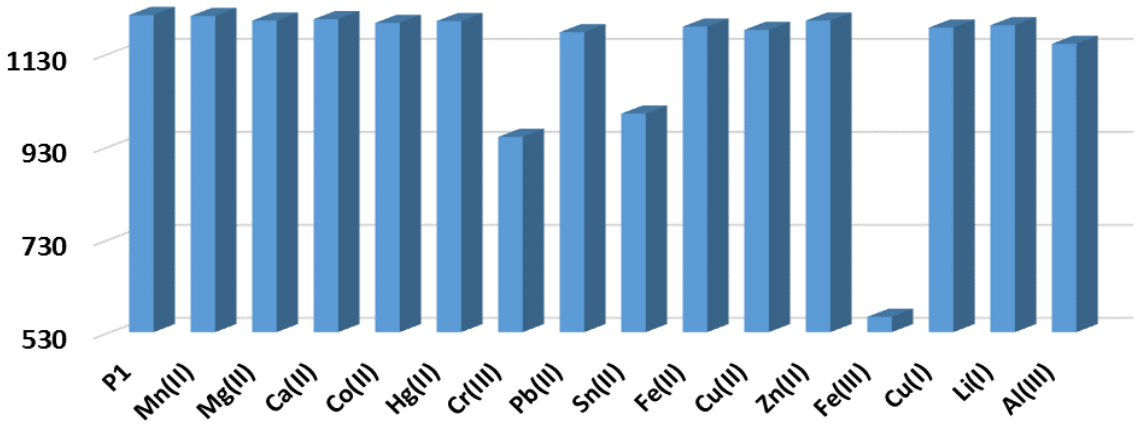


Figure S16. PL intensity changes of **P1** (10 μM) in the presence of 5 equivalents of various metal ions in pure water.

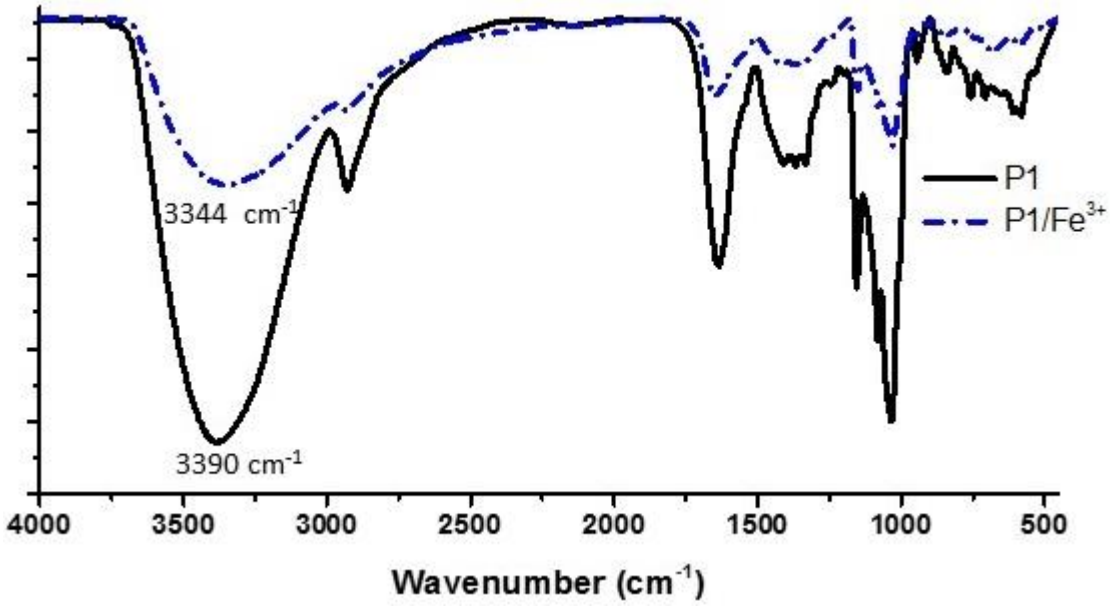


Figure S17. FT-IR spectra of **P1** in the absence and presence of Fe^{3+} ion.

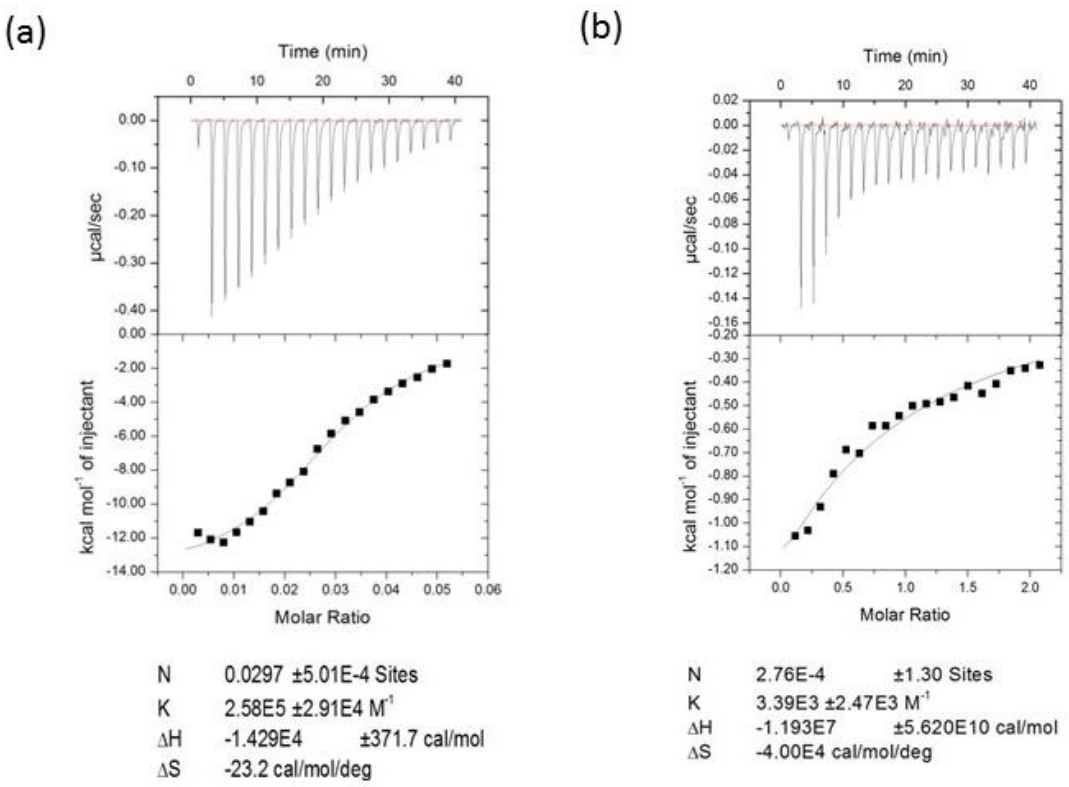


Figure S18. Titration profiles at 298 K when **P1** (1%DMSO/H_2O) was mixed at 20 µL per injection with a solution of (a) CTAB and (b) **ADRhB** in pure water. Curves in bottom figures show the fitting of data to a one-set model by the nonlinear fitting algorithm supplied by the instrument.