Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information for

Construction and Efficient Dye Absorption of Supramolecular Hydrogels by Cyclodextrin Pseudorotaxane and Clay

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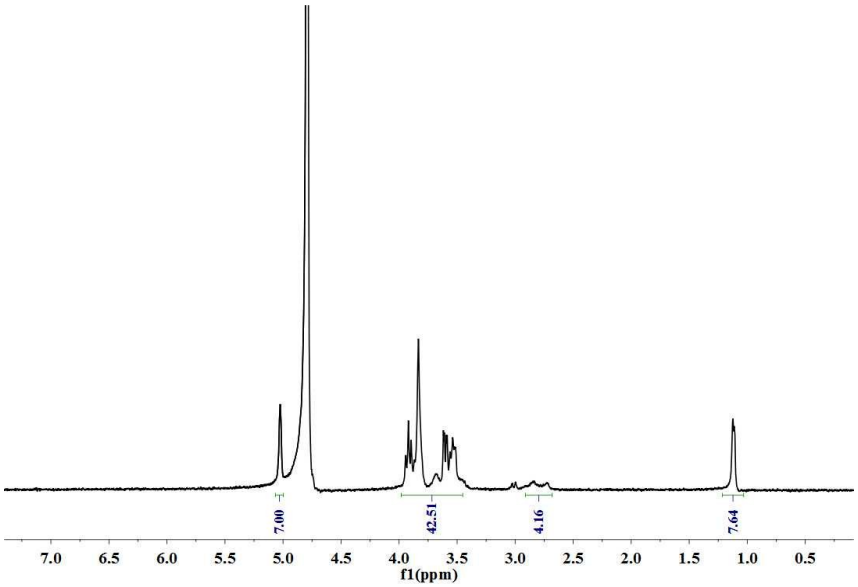

Figure S1. ^{1}H NMR spectrum (400 MHz, D_2O) of PPR1

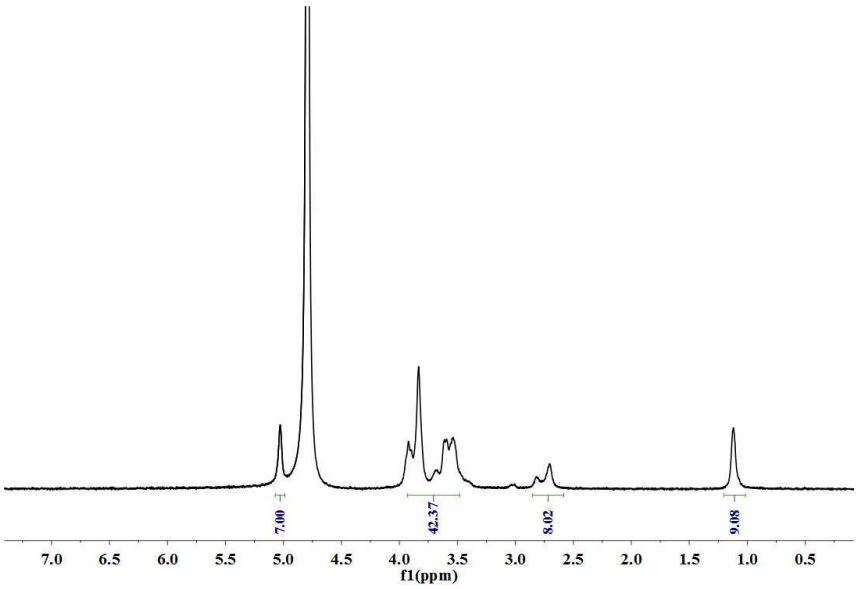

Figure S2 ^{1}H NMR spectrum (400 MHz, D_2O) of PPR2

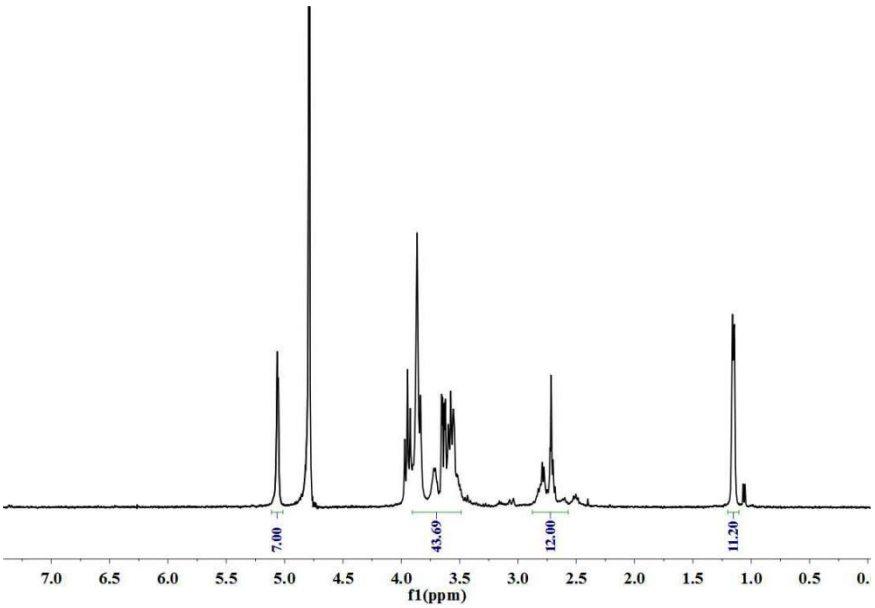

Figure S3 ^{1}H NMR spectrum (400 MHz, D_2O) of PPR3

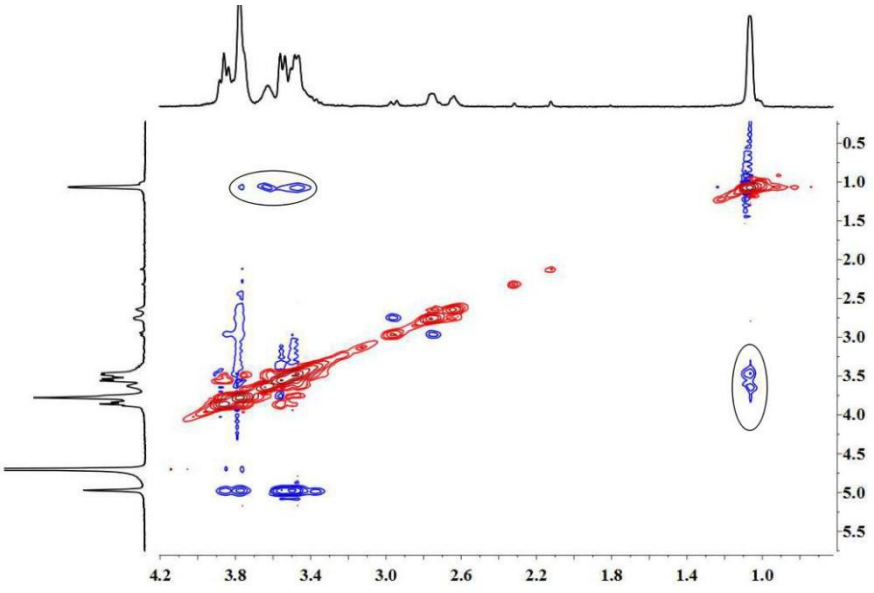

Figure S4 ^{2}D ROESY spectrum (400 MHz, D_2O) of PPR1

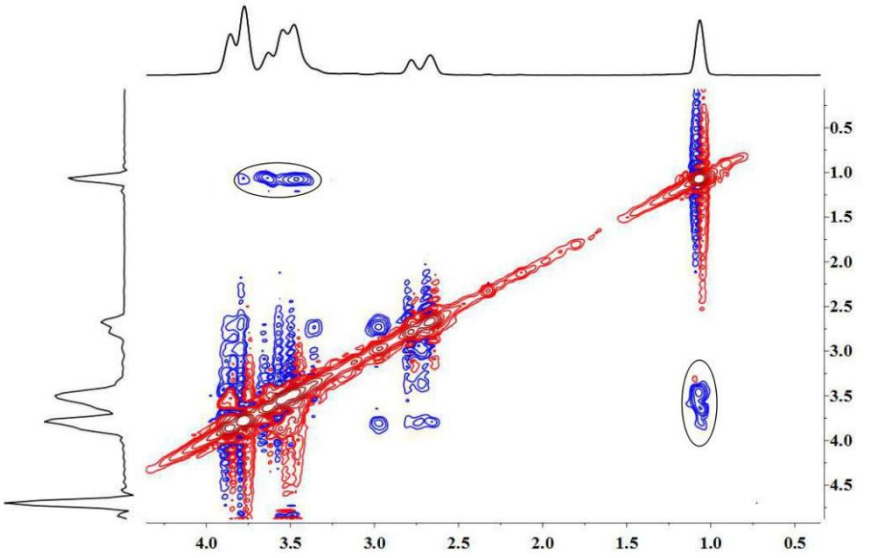

Figure S5 ^{2}D ROESY spectrum (400 MHz, D_2O) of PPR2

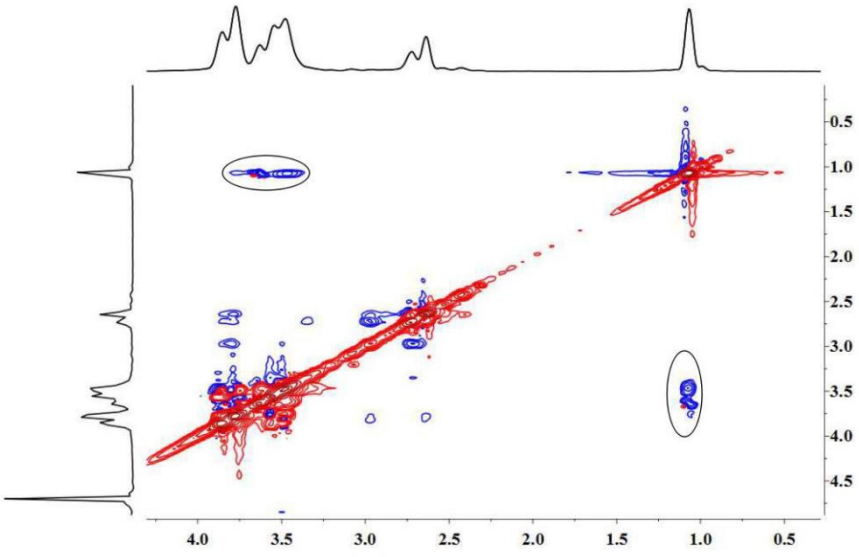

Figure S6 ^{2}D ROESY spectrum (400 MHz, D_2O) of PPR3

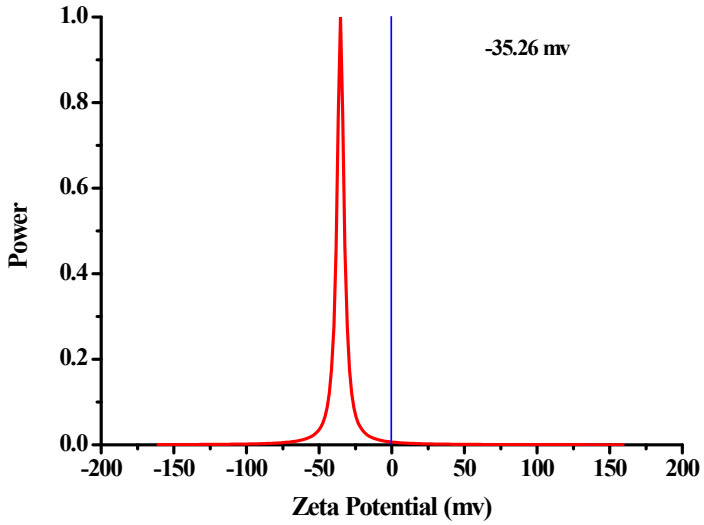

Figure S7 Zate potential of CNSs/PPR1 hydrogel in aqueous solution

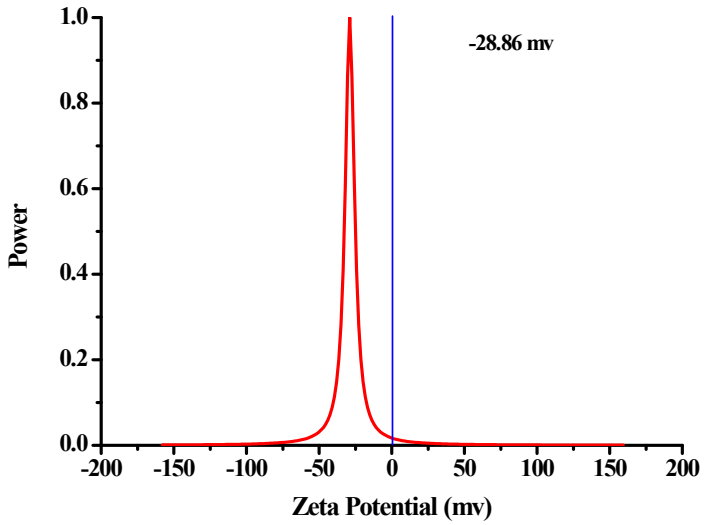

Figure S8 Zate potential of CNSs/PPR2 hydrogel in aqueous solution

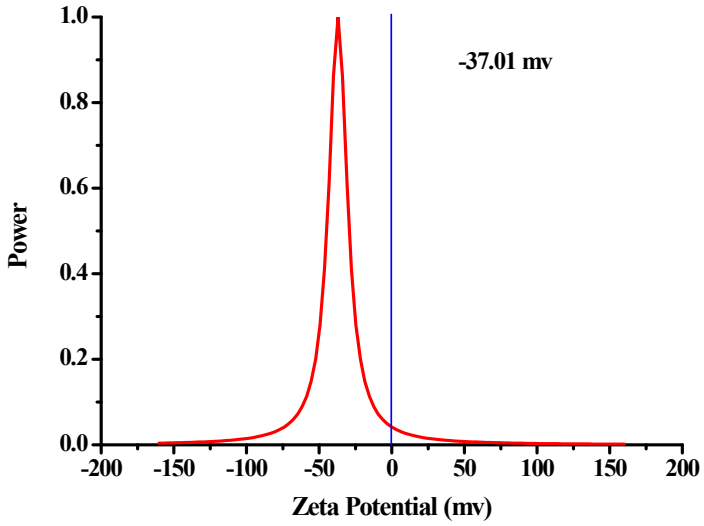

Figure S9 Zate potential of CNSs/PPR3 hydrogel in aqueous solution

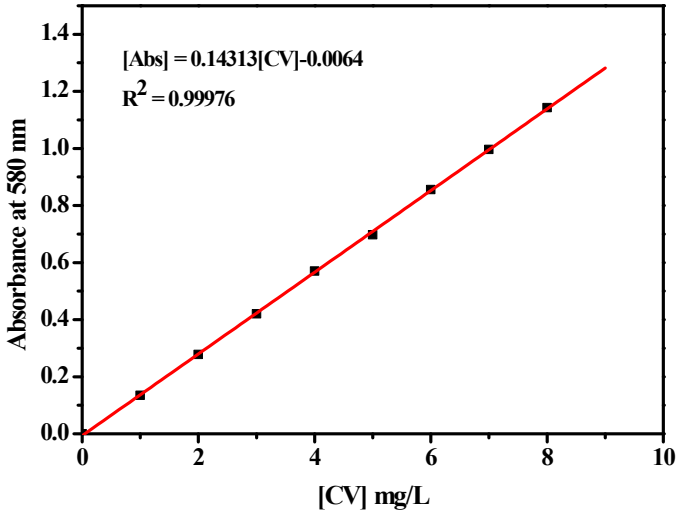

Figure S10 Standrand curve of CV aqueous solutions under different concentrations.

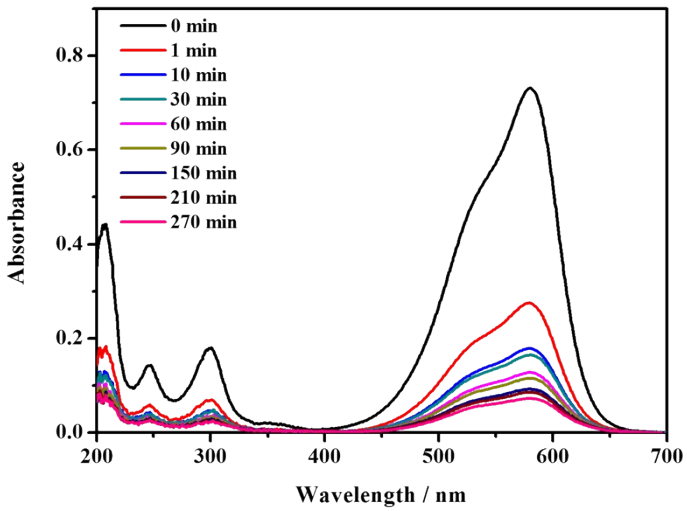

Figure S11 UV-vis spectra of VC aqueous solution in the presence of G1 after different processing times at r.t.

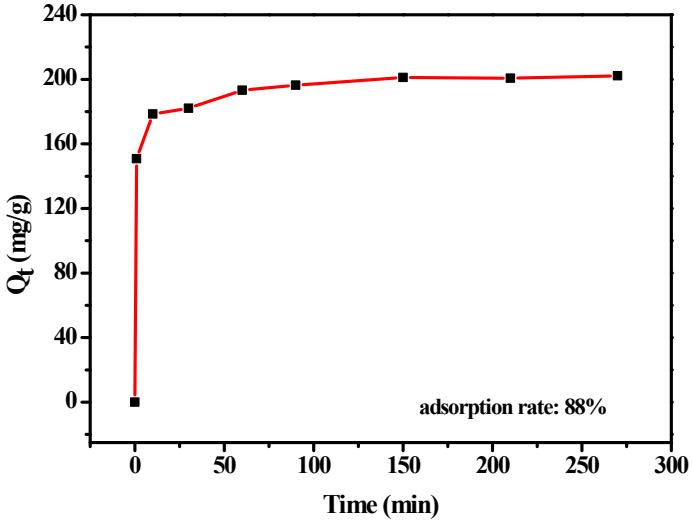

Figure S12 Adsorption capacity of G1 to CV.

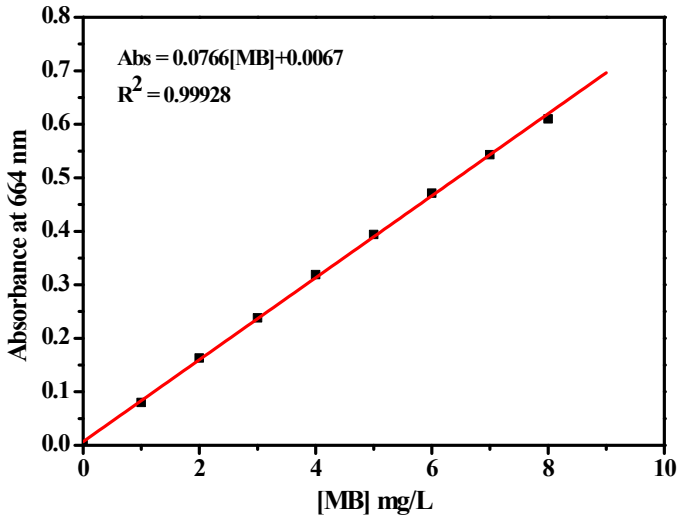

Figure S13 Standrand curve of MB aqueous solutions under different concentrations.

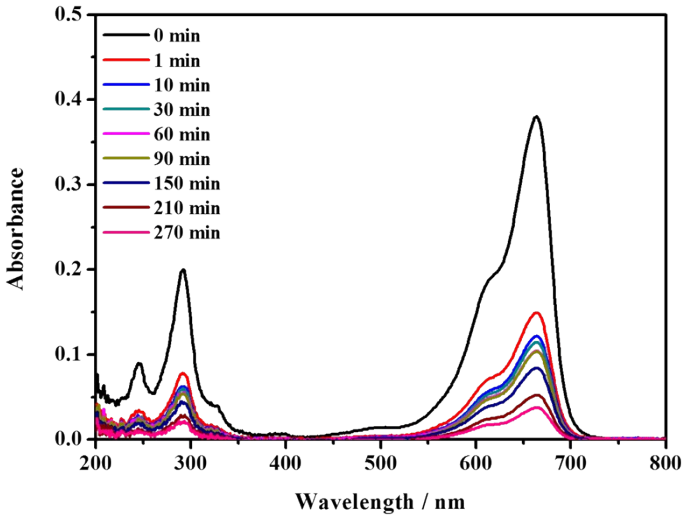

Figure S14 UV-vis spectra of MB aqueous solution in the presence of G1 after different processing times at r.t.

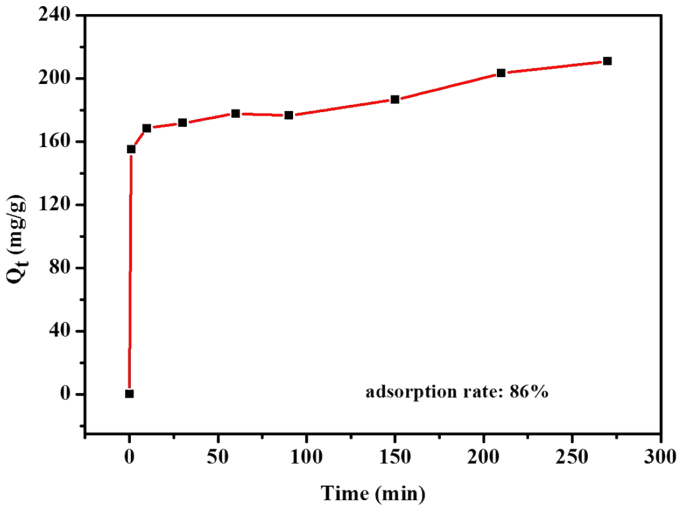

Figure S15 Adsorption capacity of G1 to MB.

	RhB	CV	MB
G1	80%	88%	86%
G2	83%	93%	98%
G3	90%	91%	87%

	RhB	CV	MB
G1	181mg/g	199mg/g	201mg/g
G2	197mg/g	209mg/g	228mg/g
G3	211mg/g	204mg/g	205mg/g

Table S1. The adsorption efficiency and the adsorption capacity (Qe) in 180 min of the three gels adsorbing the three dyes

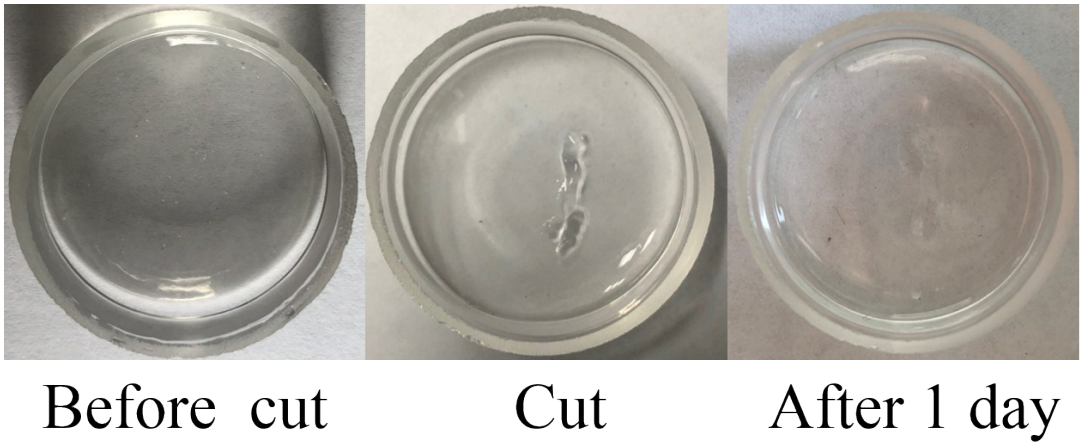

Figure S16 Self-healing experiment of supramolecular hydrogels