

Supporting Information

C₂-symmetric benzene-based hydrogels with unique layered structures for controllable organic dye adsorption

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A) Abbreviations

DCM = Dichlormethane

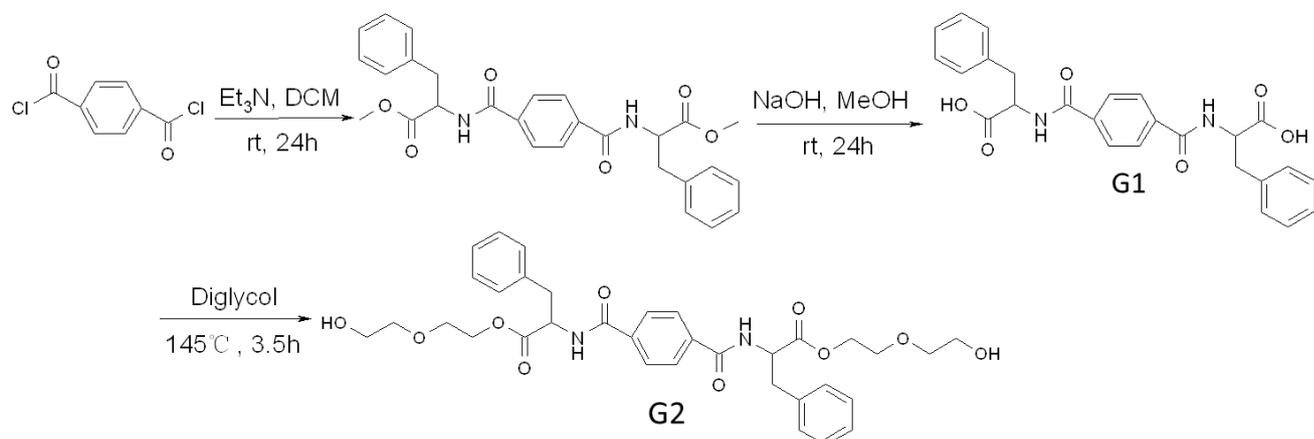
MB = Methylene blue

MV = Methy violet 2B

IC = Indigo carmine

ACBK = Acid chrome blue K

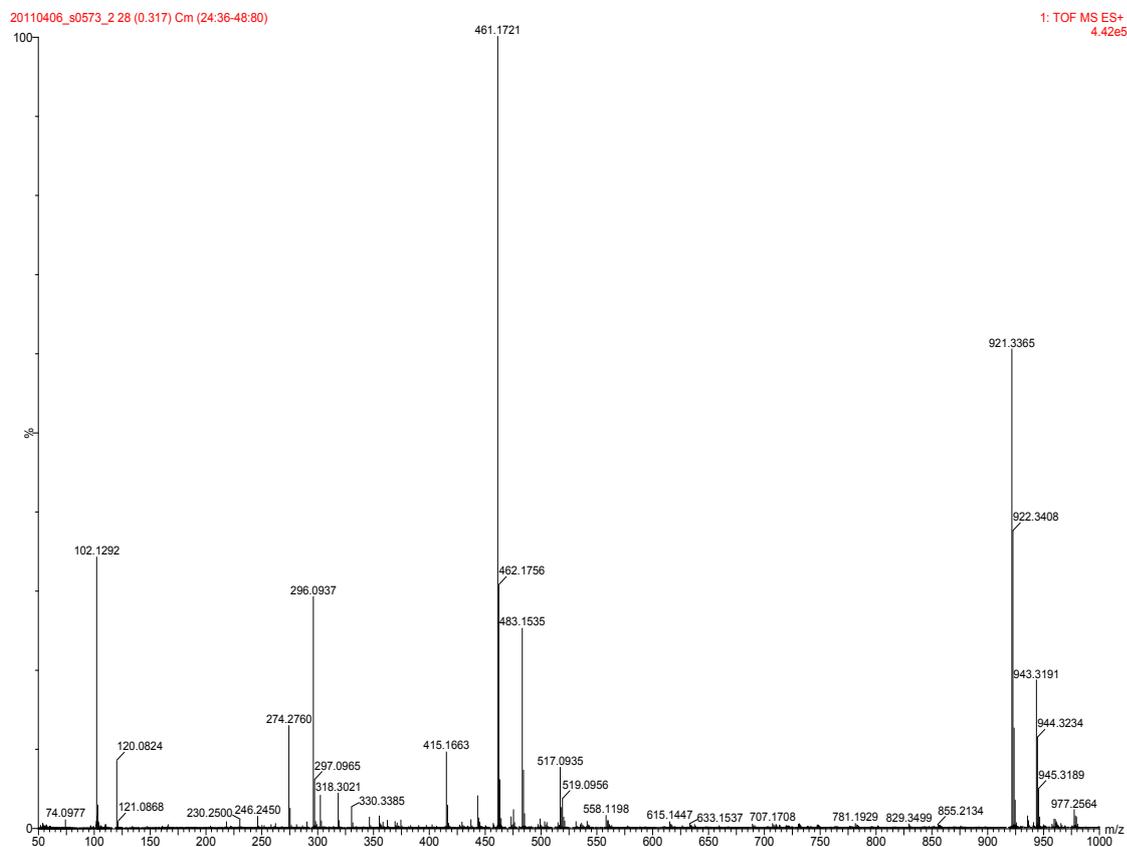
B) Experimental section



Scheme S-1. Synthetic route of G1 and G2

C) Mass spectra of the compounds

(a)



(b)

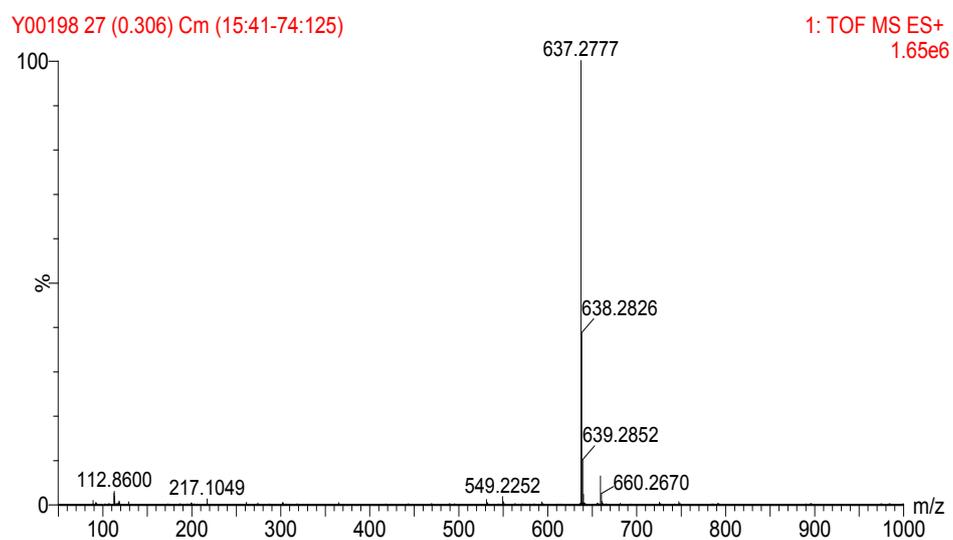


Figure S-1. Mass spectra of (a) G1, (b) G2

D) pH_{gs} values of G1

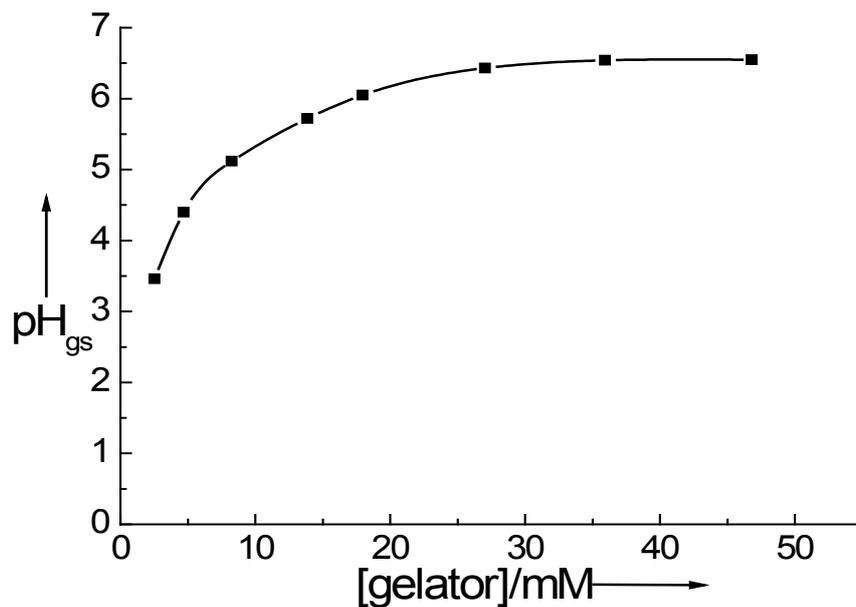


Figure S-2. pH_{gs} values for hydrogel of different concentrations of G1

E) Surface areas of G1 and G2

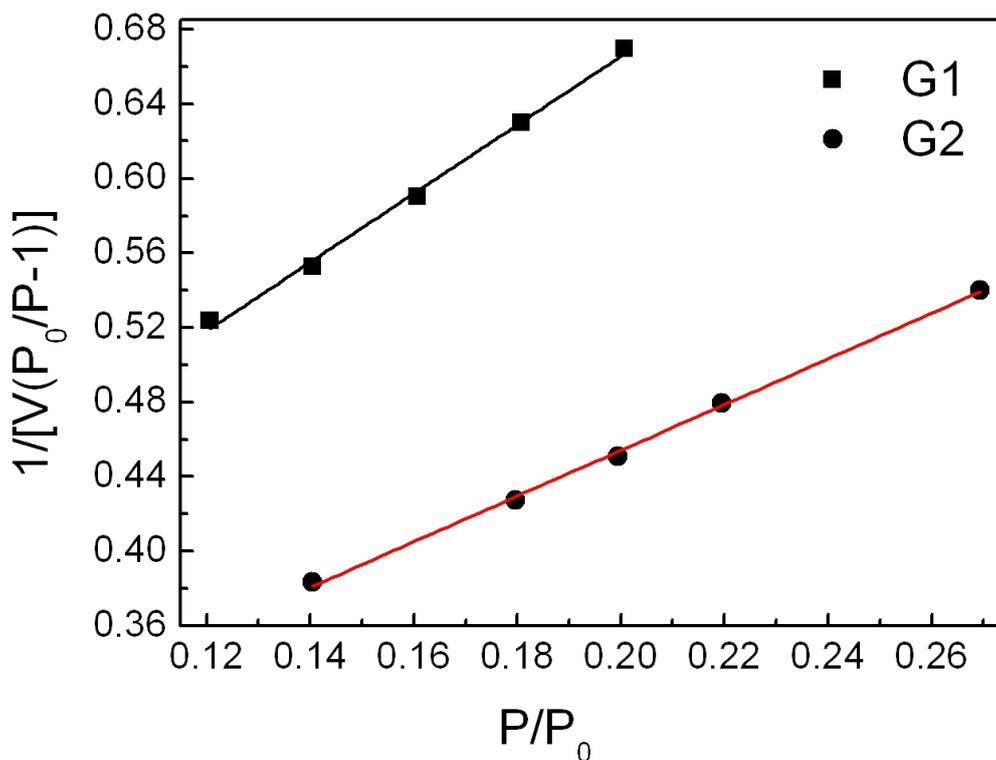


Figure S-3. N_2 adsorption isotherm linear plots of G1 and G2

F) FT-IR spectra of G1 and G2

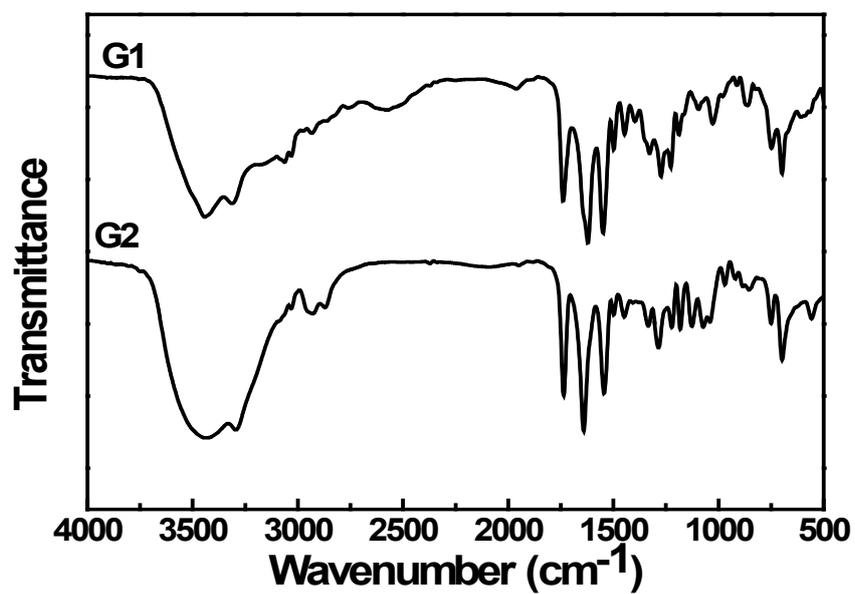
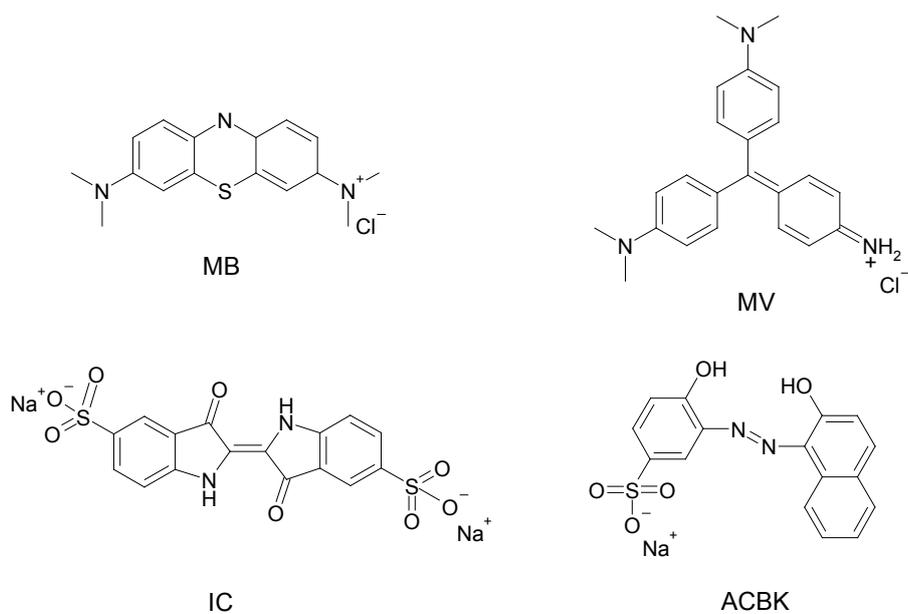


Figure S-4. FT-IR spectra obtained from G1 and G2 xerogel

G) Dye adsorption studies



Scheme S-2. Structure of the dyes used in the experiment reported in the Table 1

Table S-1. SAXS data for xerogel G1 before and after adsorbing MB, MV, and G2

Sample	Constant	2 θ (°)			d (Å)		
G1		2.4	4.9		36.3		18.1
G1-MB		2.4	4.9		36.6		18.2
G1-MV		2.4	4.8		36.6		18.3
G2		4.6	8.3	9.1	19.2	10.7	9.7

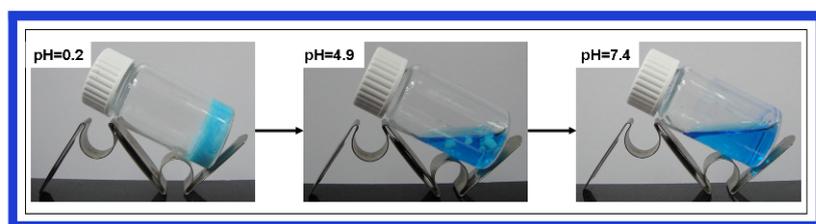


Figure S-5. The release of MB with the increase of system pH value.