

Supporting Information

Multiscale Porous Carbon Materials by In-situ Growth of Metal-Organic Framework in the Micro-channel of Delignified Wood for High-Performance Water Purification

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Table S1. Adsorption isotherm model parameters for RhB on balsa wood, TW-CA, ZIF-8/DW-CA, and ZIF-8/TW-CA.

Samples	Experimental q_{\max} (mg/g)	Langmuir			Freundlich		
		q_{\max} (mg/g)	K_L	R^2	n	K_F	R^2
Balsa wood	43.15	51.06	0.0071	0.95	2.5	3.05	0.91
ZIF-8/DW-CA	119.4	129.64	0.0076	0.94	2.69	9.637	0.98
ZIF-8/TW-CA	169.4	173.4	0.0102	0.92	2.85	15.876	0.99

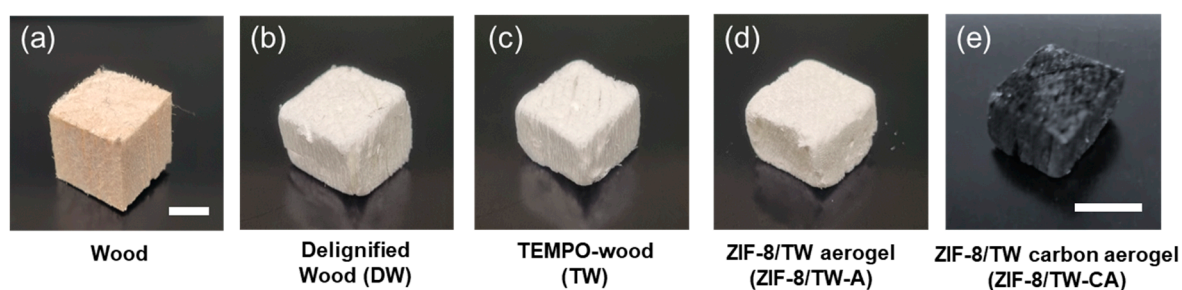


Figure S1. Photographs of (a) pristine wood, (b) delignified wood (DW), (c) TW, (d) ZIF-8/TW-A, and (e) ZIF-8/TW-CA. Scale bar = 0.5 mm

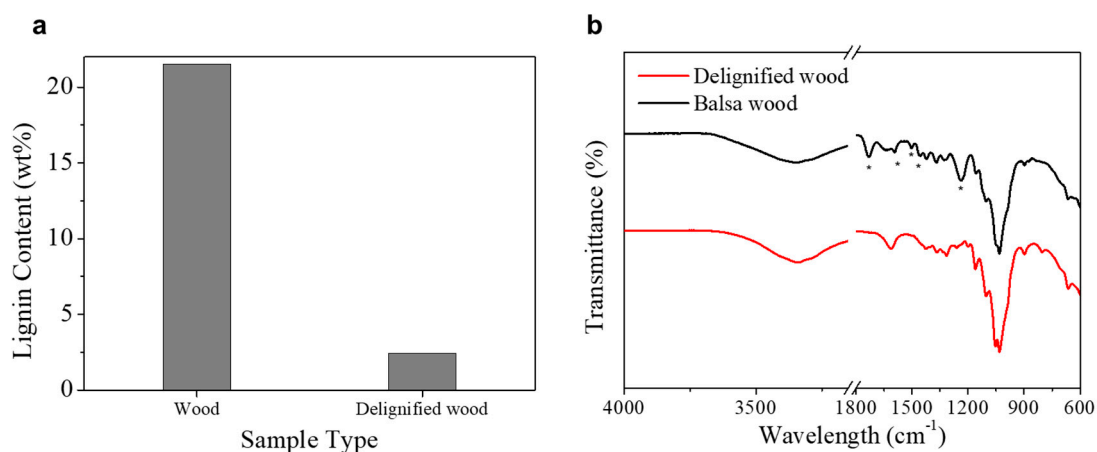


Figure S2. (a) Lignin contents of balsa wood, delignified wood and TEMPO wood after Klason lignin analysis. (b) FT-IR spectra of balsa wood and delignified wood.

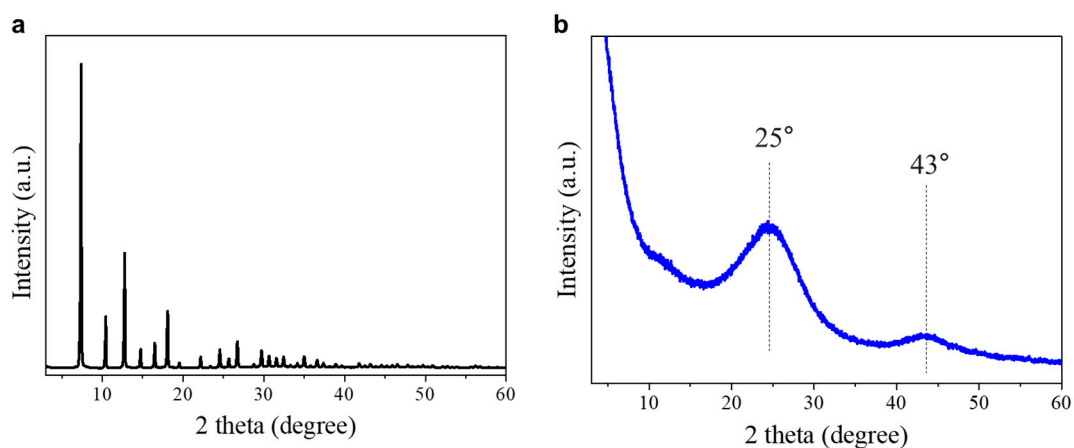


Figure S3. XRD pattern obtained from (a) synthesized ZIF-8 and (b) ZIF-8/TW-CA.

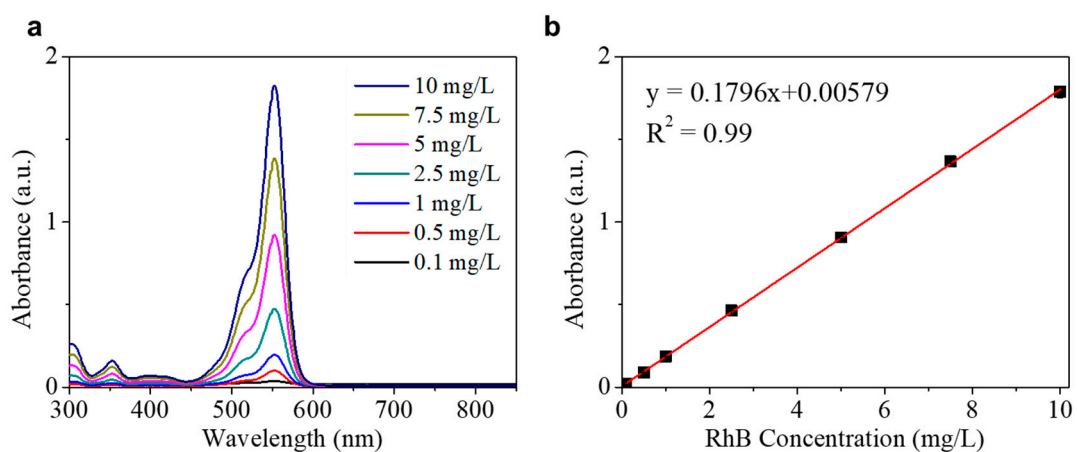


Figure S4. (a) Adsorption spectra of RhB dye at diverse concentrations (0.1–10 mg/L). (b) Calibration curve for the adsorption of RhB dye.

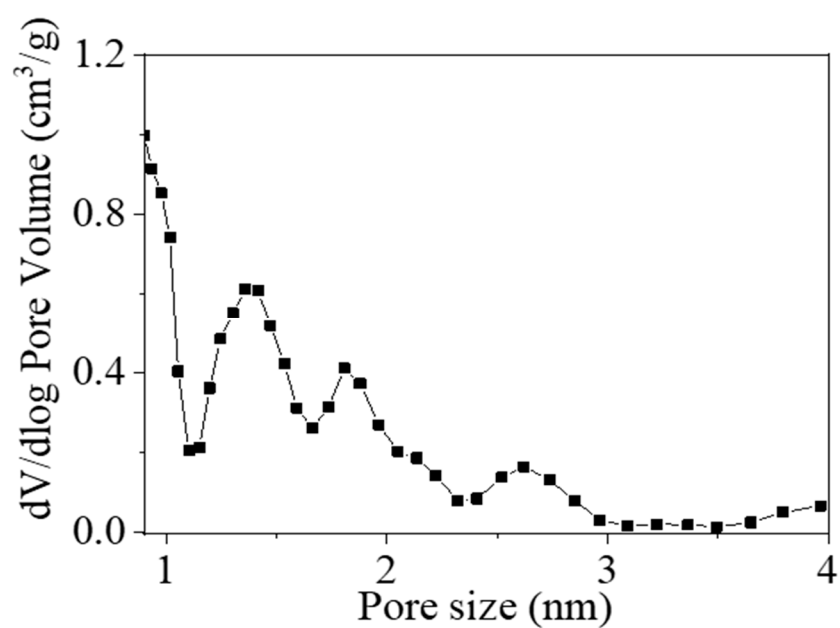


Figure S5. The corresponding pore-size distributions of ZIF-8/DW-CA.

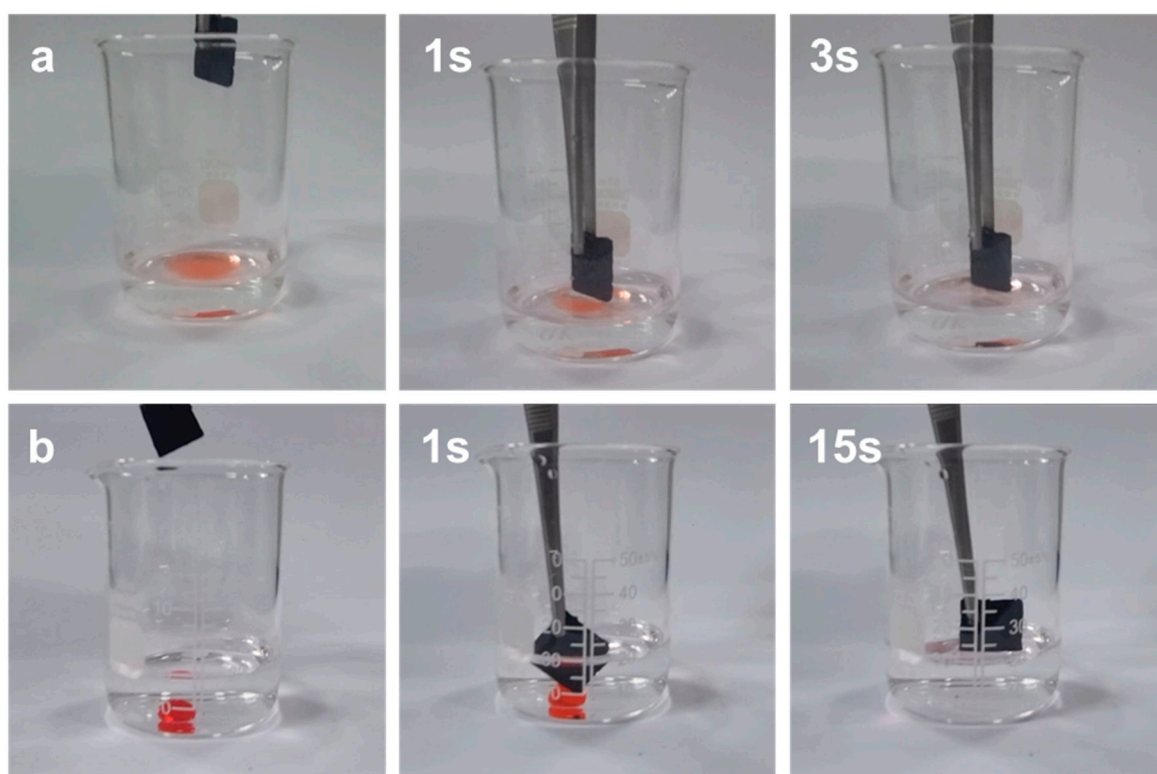


Figure S6. Photograph of the removal of (a) *n*-hexane (stained with Sudan III) and (b) chloroform (stained with Sudan III) by using ZIF-8/TW-CA.