

Supporting Information

Superhydrophobic Hyper-Cross-linked Polymer Synthesized at a Room Temperature as Efficient Adsorbent for Volatile Organic Compounds

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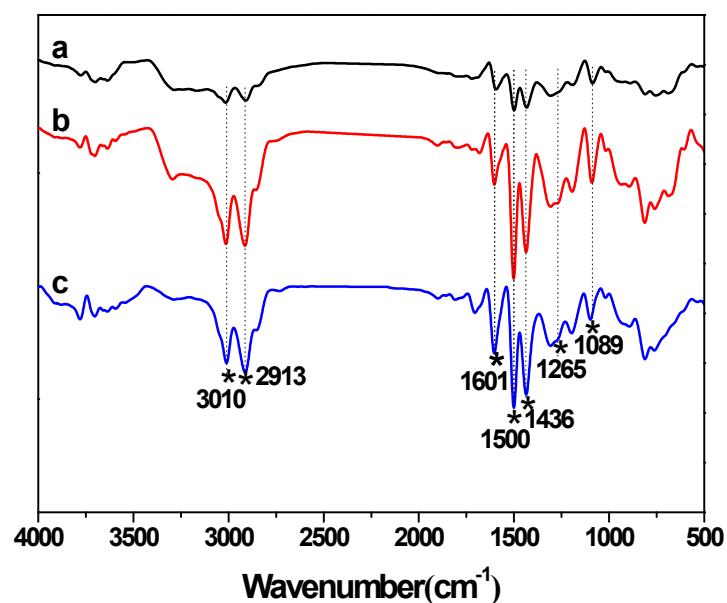


Figure S1. FT-IR spectra for CIBE-0.5 (a), CIBE-1.0 (b), CIBE-1.5 (c).

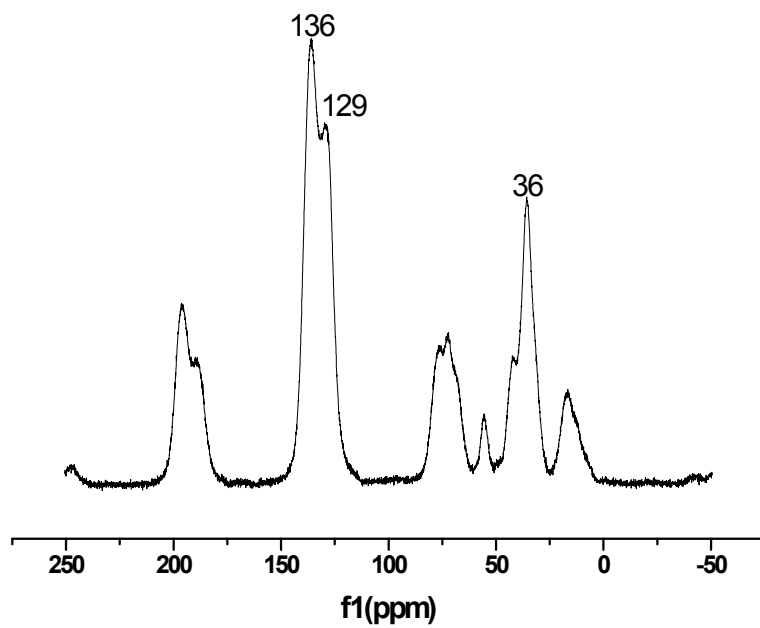


Figure S2. Cross-polarization (CP) ^{13}C MAS natural abundance NMR spectrum of CIBE-1.5.

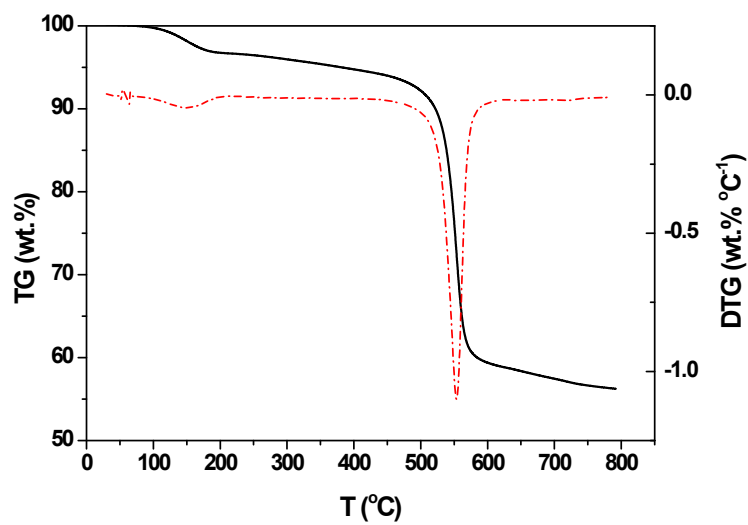


Figure S3. TG and DTG curves for CIBE-1.5.

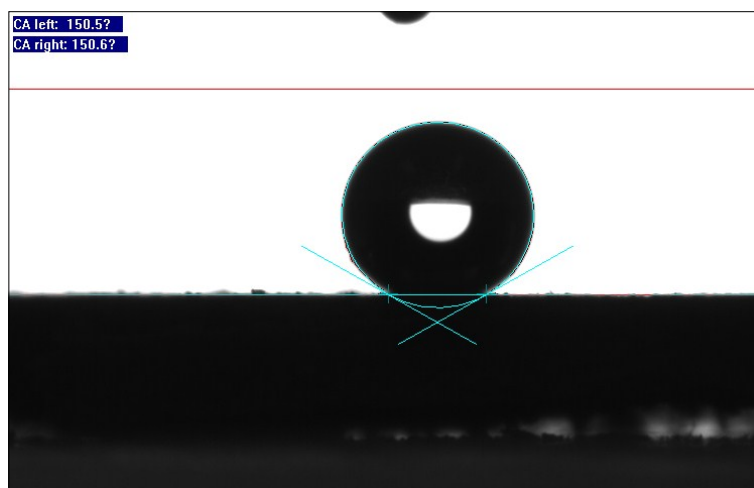


Figure S4. Water contact angle on CIBE-1.5.

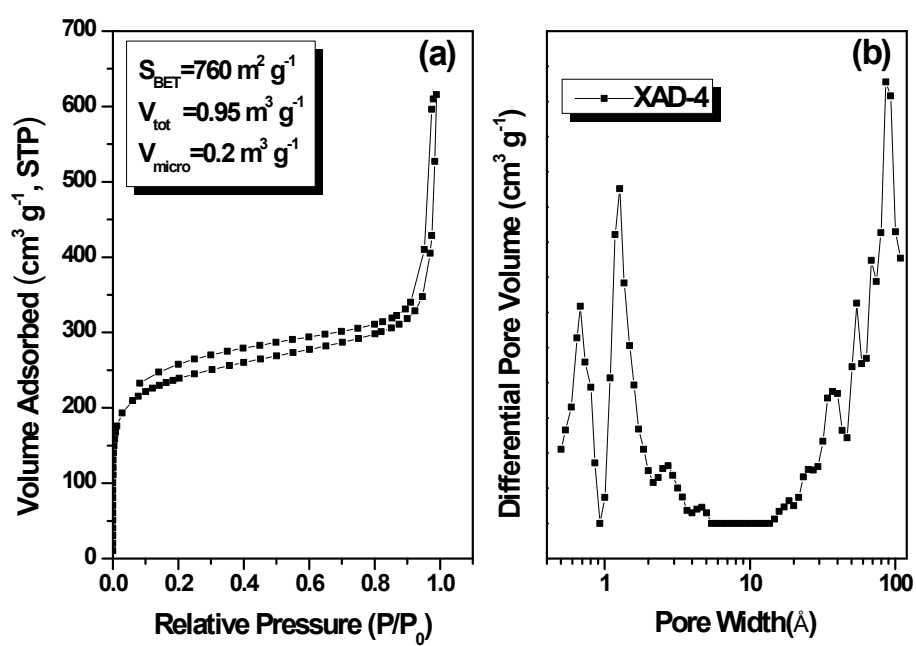


Figure S5. Nitrogen sorption isotherms of XAD-4 (a) and pore size distribution calculated using DFT methods (b).

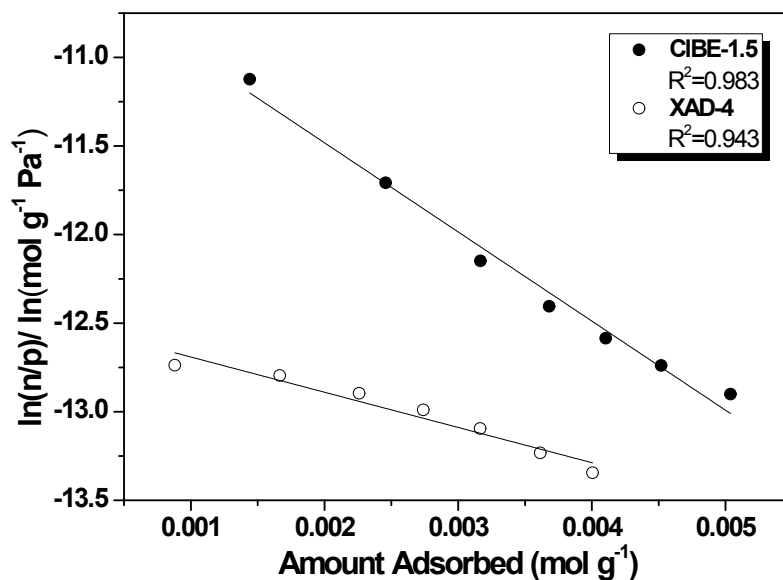


Figure S6. Virial graphs for benzene on CIBE-1.5 and XAD-4 at 25°C.

Table S1. Dynamic adsorption capacities of CIBE-1.5 and XAD-4 and breakthrough characteristics of benzene adsorption calculated from Y-N model

Material	RH=0%			RH=80%			Breakthrough time (min) (RH=80%)	Q_{wet}/Q_{dry}
	Q (mmol g ⁻¹)	τ_0 (min)	R^2	Q (mmol g ⁻¹)	τ_0 (min)	R^2		
CIBE-1.5	1.91	103.95	0.996	1.86	101.68	0.989	28.18	97%
XAD-4	1.48	80.61	0.985	0.85	44.45	0.997	6.27	57%