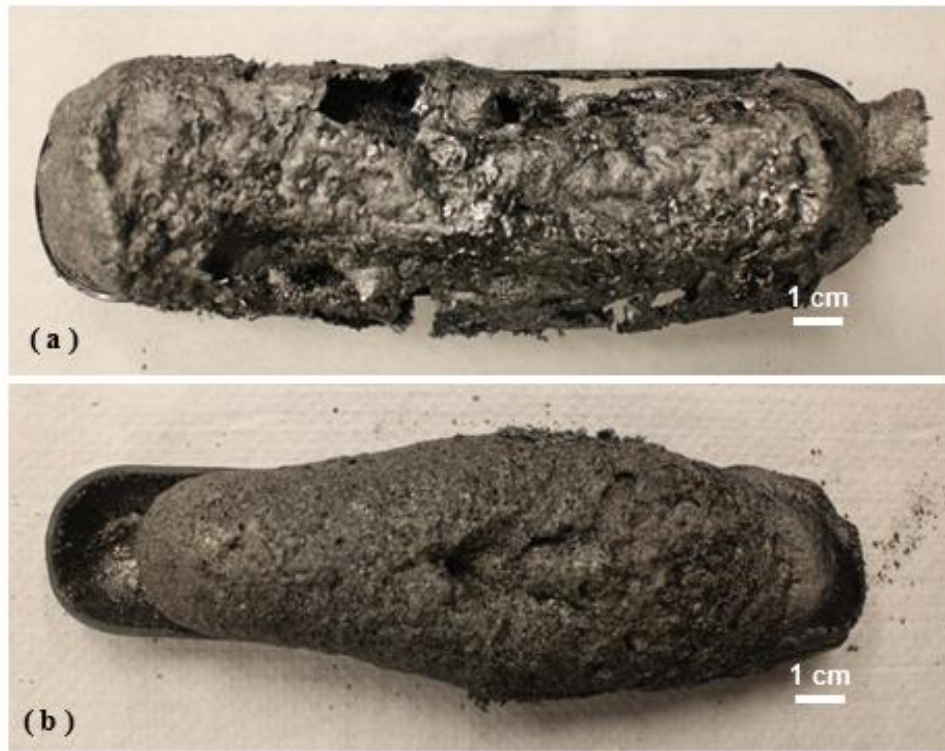


**Tailored Activated Carbon from Glycerol: Role of Acid Dehydrator on Physiochemical
Characteristics and Adsorption Performance**

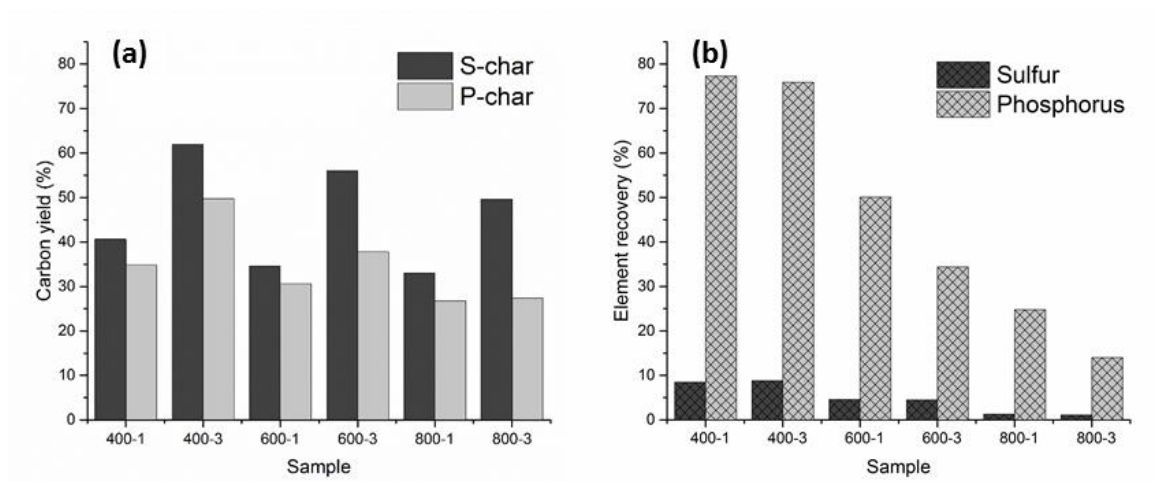
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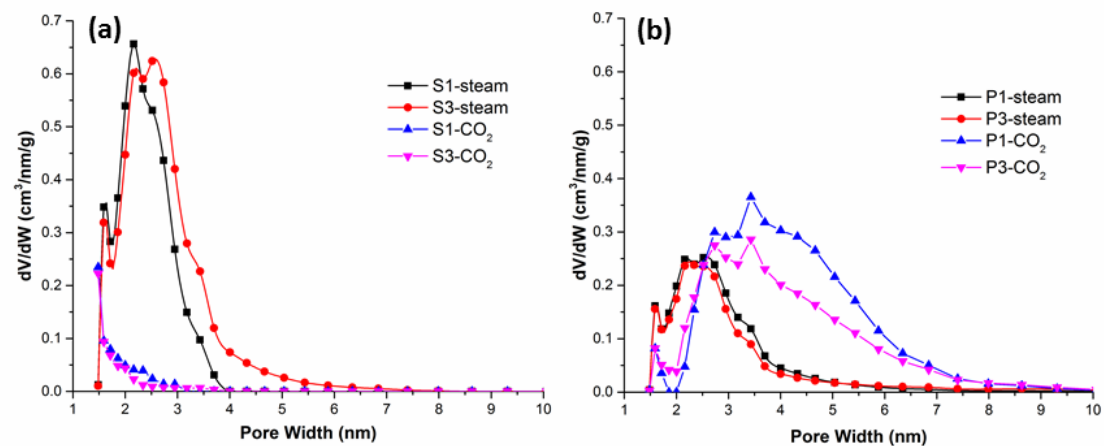
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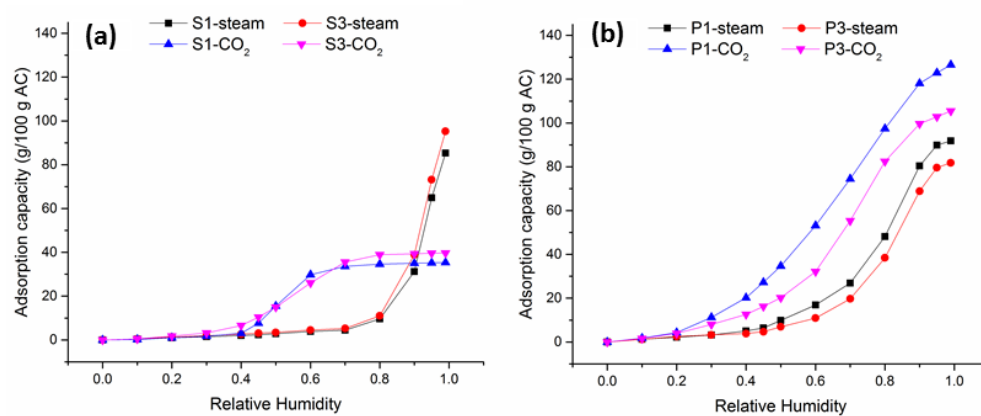
Supplementary Figure 1. Surface texture of (a) S600-3 and (b) P600-3



Supplementary Figure 2. (a) Carbon and (b) sulfur/phosphorus yields for S- and P-chars



Supplementary Figure 3. Pore size distribution of (a) S-ACs, and (b) P-ACs



Supplementary Figure 4. Water vapor adsorption isotherms at 25 °C for ACs prepared from glycerol-based (a) S- and (b) P-chars

Supplementary Table 1. Pseudo-second-order rate constants and Cr (VI) removal for glycerol-based ACs

Sample	Second-pseudo-order model			Removal (%)					
	q _e (mg/g)	K ₂ (g/mg-h)	R ²	10 mg/L	20 mg/L	30 mg/L	50 mg/L	80 mg/L	100 mg/L
S3-steam	30.40	0.003612	0.9996	98.4	98.1	79.4	56.2	40.5	33.6
S3-CO ₂	18.98	0.006926	0.9998	88.0	62.8	47.6	34.4	22.4	17.7
P1-steam	32.05	0.002653	0.9998	85.6	83.9	71.4	60.2	47.4	40.0
P1-CO ₂	40.65	0.001412	0.9993	95.8	85.4	82.3	78.6	66.0	57.6