

**Efficient Toluene Adsorption on Metal Salt Activated Porous Carbons Derived
from Low-Cost Biomass: A Discussion of Mechanism**

Bowen Li, He Xiong, Yang Xiao*, Juncheng Hu, Xin Zhang, Li Li, Ruoheng Wang

*Key Laboratory of Catalysis and Energy Materials Chemistry of Ministry of Education,
South-Central University for Nationalities, Wuhan 430074, China*

**Tel: +86 27 67842752; E-mail: xiaoyang@scuec.edu.cn*

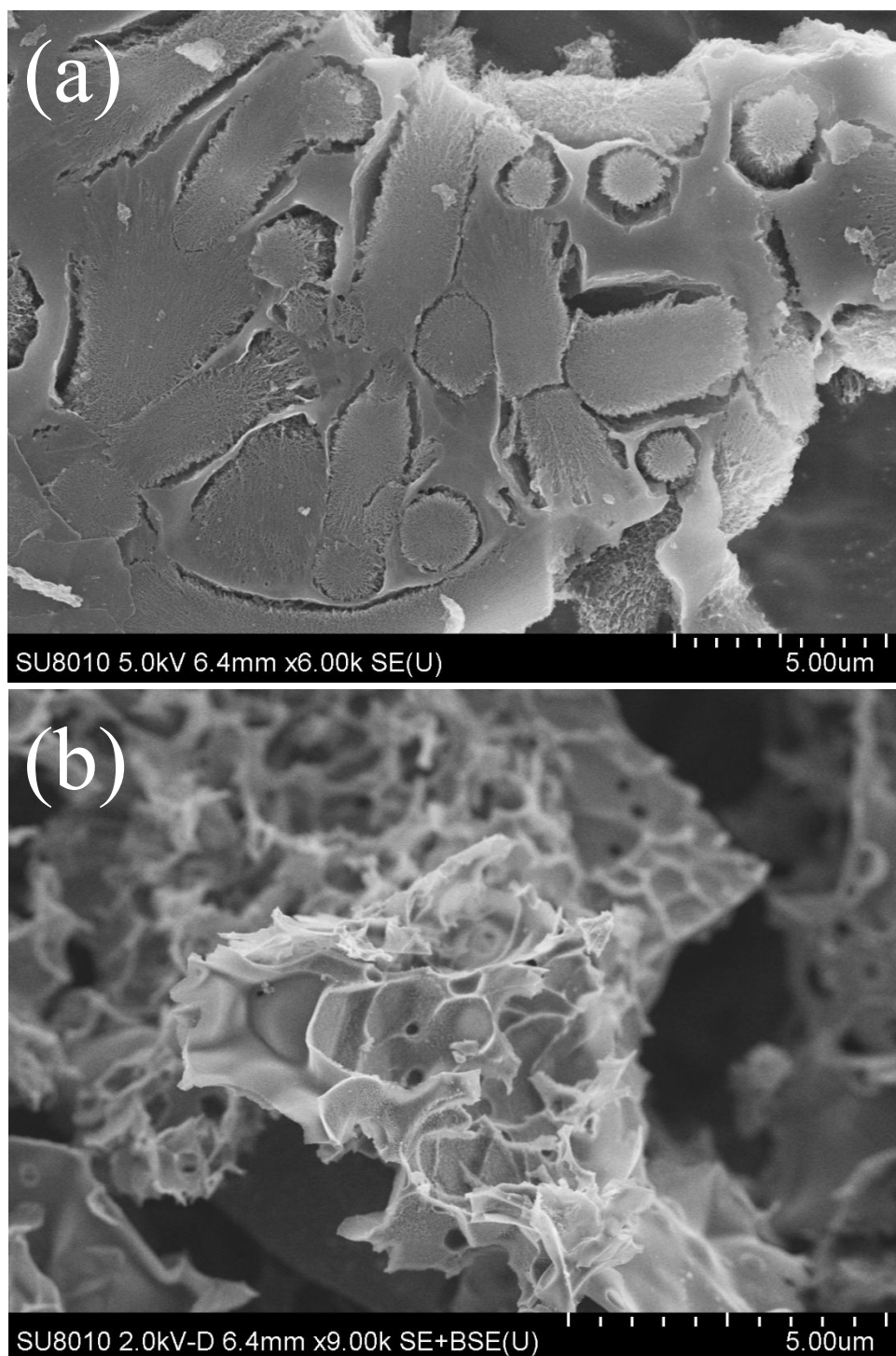


Figure S1 SEM images of (a) PCS-ZnCl₂ and (b) PCS-CaCl₂.

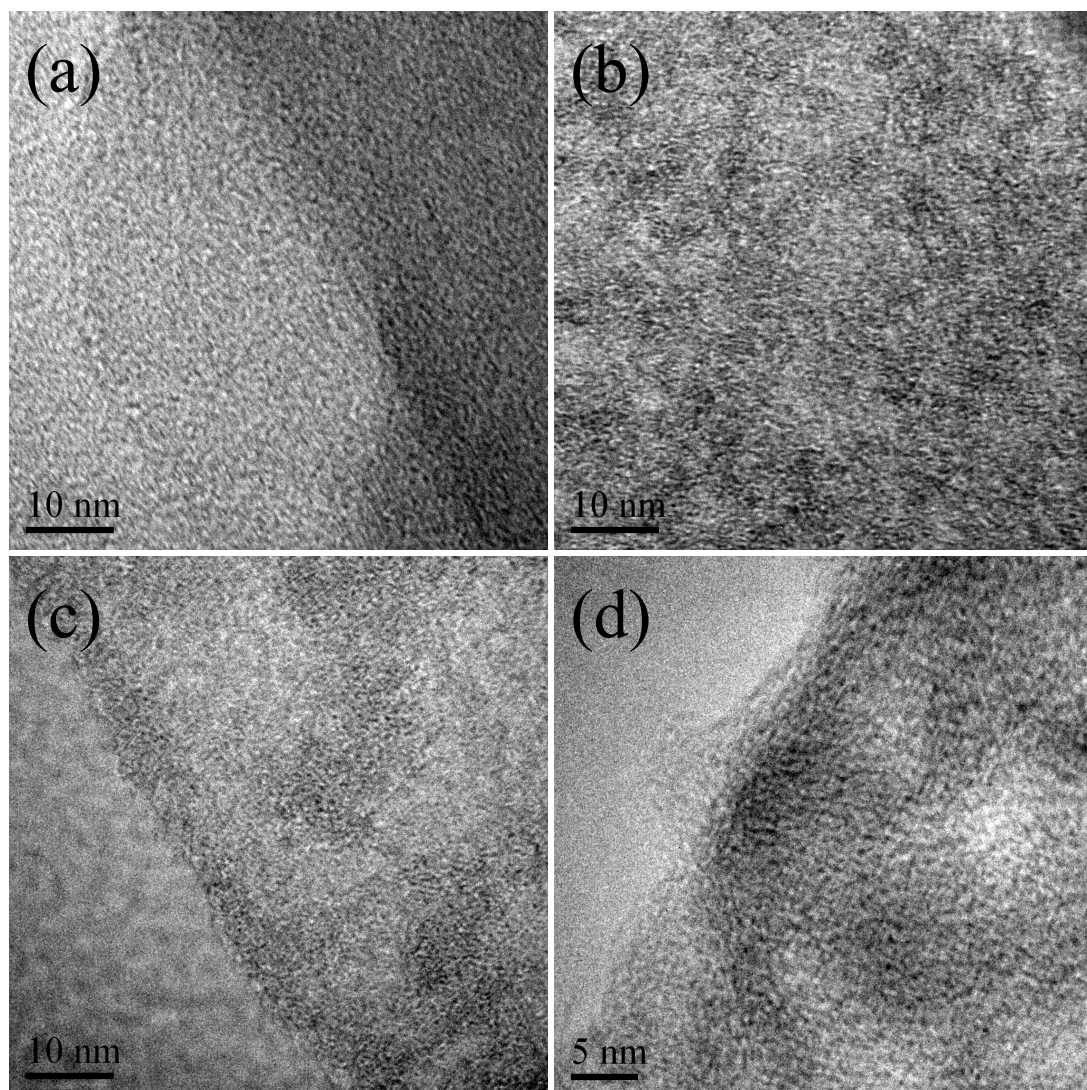


Figure S2 HRTEM images of (a) PCS-NaCl, (b) PCS-ZnCl₂, (c) PCS-CaCl₂ and (d) PCS-FeCl₃

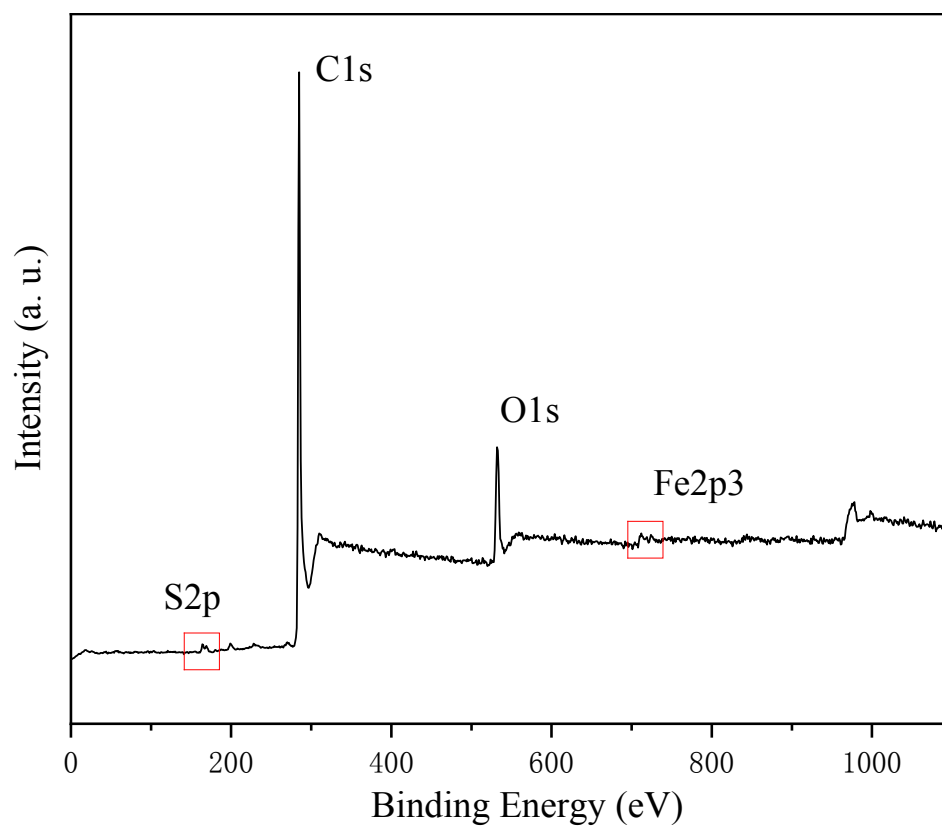


Figure S3 XPS survey scan for PCS-FeCl₃

Table S1 Adsorption isotherm data for PC-MCl_x.

Samples	Langmuir			Freundlich		
	Q _m (mg/g)	K _l	R ²	K _f	1/n	R ²
PC-NaCl	2391.27	0.52	0.92	986.76	0.38	0.90
PC-ZnCl ₂	2706.30	0.42	0.98	894.48	0.42	0.99
PC-CaCl ₂	2352.77	0.47	0.91	1046.76	0.33	0.86
PC-FeCl ₃	2411.41	0.46	0.91	965.38	0.40	0.85