

Nanoscale porous glucose-based polymer for gas adsorption and drug delivery

Xiaowei Jiang,[†] Qiuliang Wang,[†] Yunfei Liu, Xiaohui Fu, Yali Luo* and Yinong Lyu*

*State Key Laboratory of Materials-Oriented Chemical Engineering, College of Materials
Science and Engineering, Nanjing Tech University, Nanjing 210009, P. R. China*

Tel: +86 25 83172114; Email: luoyali@njtech.edu.cn

Tel: +86 25 83172118; Email: yinonglu@njtech.edu.cn

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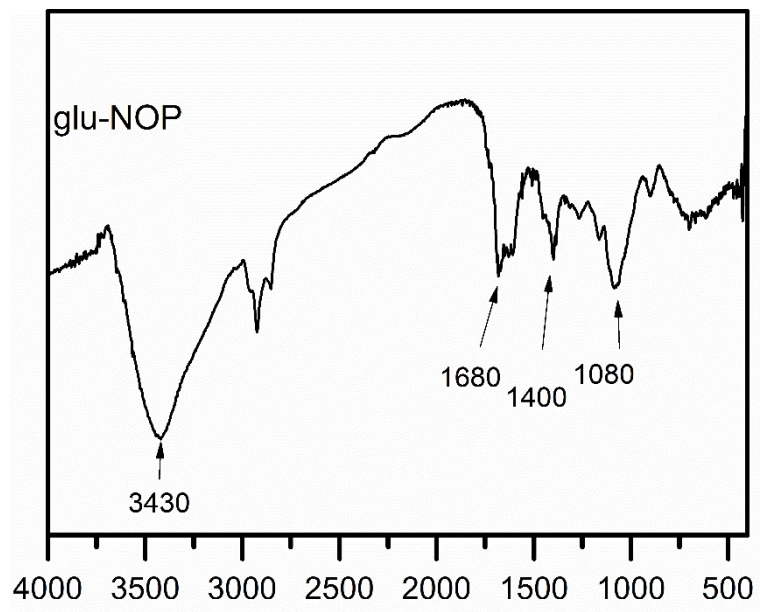


Fig. S1 FTIR spectrum of glu-NOP.

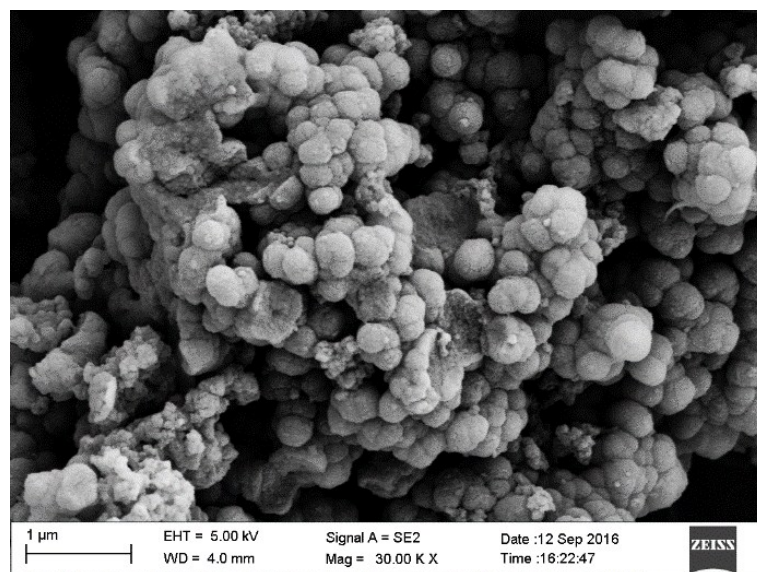


Fig. S2 SEM image of glu-NOP.

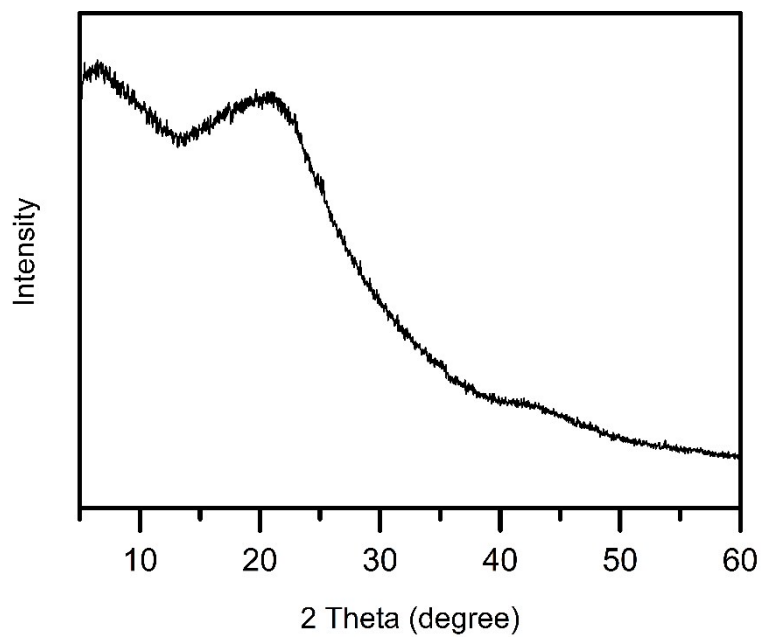


Fig. S3 Powder X-ray diffraction of glu-NOP.

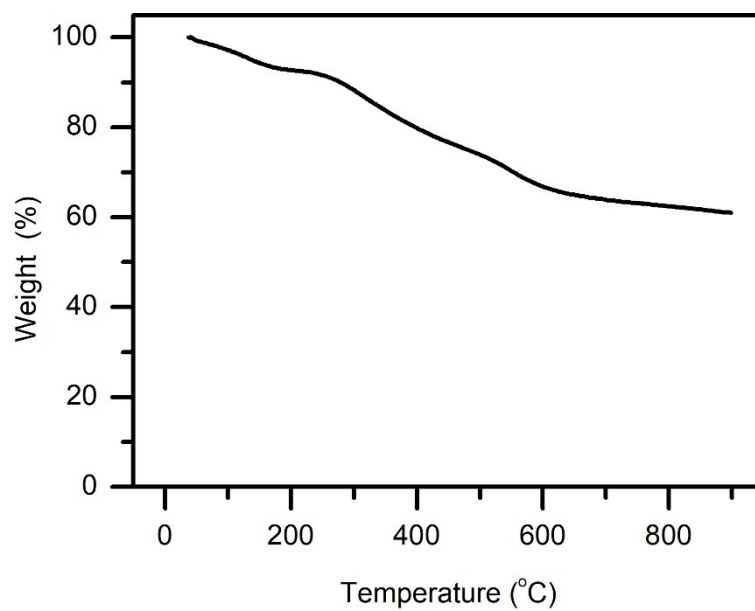


Fig. S4 TGA plots of glu-NOP under nitrogen atmosphere.

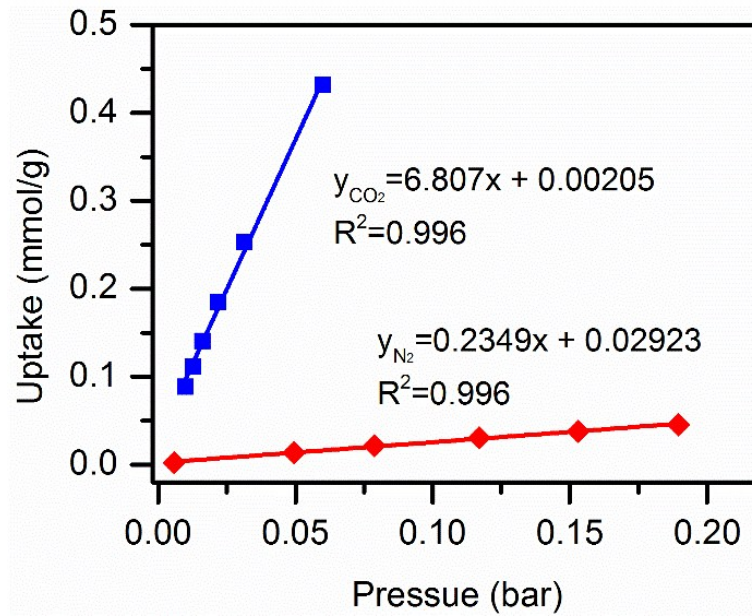


Fig. S5 Initial slope fitting at 273 K for glu-NOP.

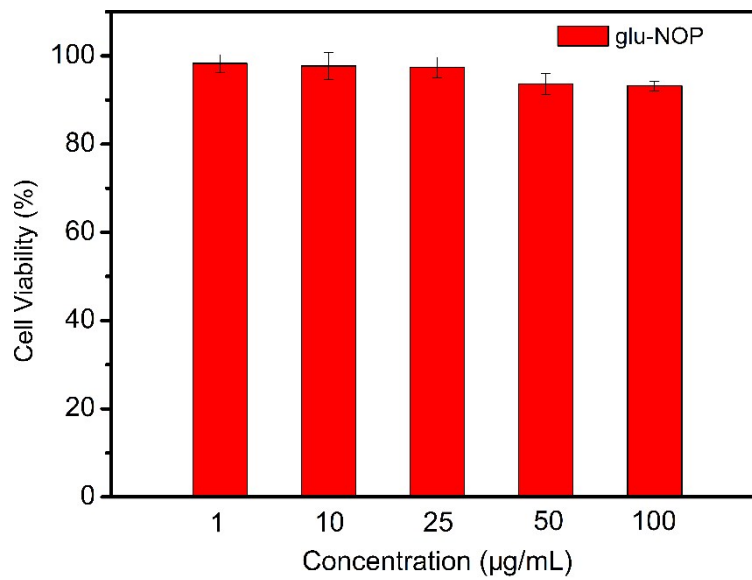


Fig. S6 In vitro biocompatibility of glu-NOP against HeLa cells at different concentrations for 24 h.

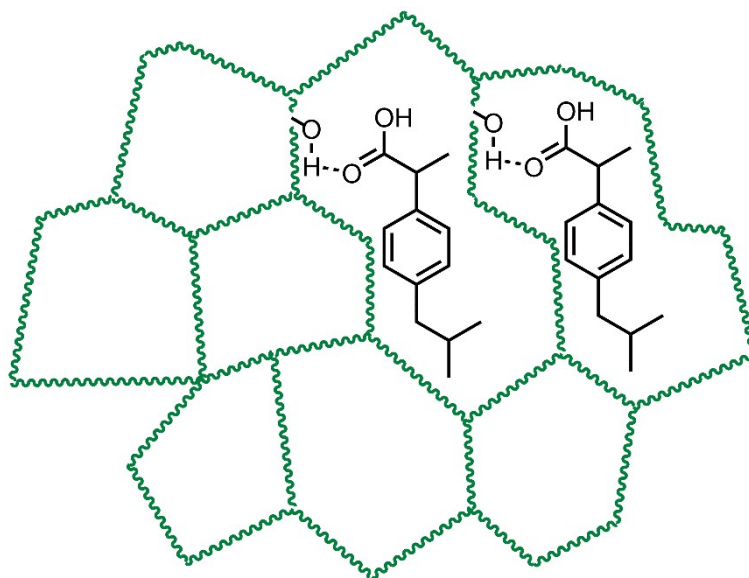


Fig. S7 Diagram of adsorption of IBU.

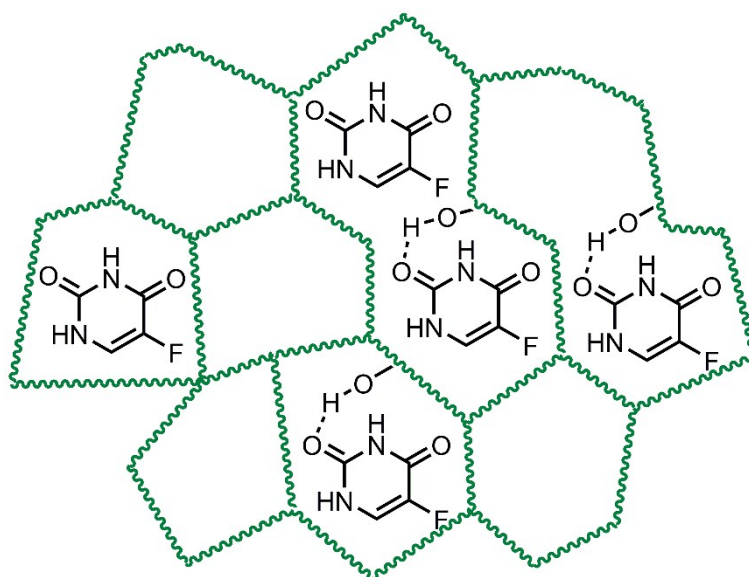


Fig. S8 Diagram of adsorption of 5-FU.

Table S1 Comparison of surface area, CO₂ uptake, and isosteric heat (Q_{st}) in selected NOPs with – OH functional groups.

	S _{BET} (m ² g ⁻¹)	CO ₂ uptake (mmol g ⁻¹)	T (K)	Q _{st} (kJ mol ⁻¹)	Ref
glu-NOP	682	2.84	273	23-25	This work
		1.71	298		
Glc-3	829	2.43	273	25.8	1
		1.45	298		
1-naphthol	414	1.85	273	28-31	2
		1.25	298		
phenol	400	2.14	273	28-31	3
Tetraphenylethylene- HCP	618	1.92	273	-	4
		1.12	298		

Table S2 Porosity and CO₂ capacities of samples

	S _{micro} (m ² g ⁻¹)	V _{total} (cm ³ g ⁻¹)	V _{micro} (cm ³ g ⁻¹)	S _{micro} /S _{BET}	V _{micro} /V _{total}	Ref
glu-NOP	451	0.39	0.18	66.1 %	46 %	This work
Glc-3	479	0.47	0.22	57.7 %	46 %	1

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