

Electronic Supplementary Information

Adsorption of berberine hydrochloride onto mesoporous carbons with tunable pore size

Yin Li ^{a,b,*}, Xiuyang Lu ^b, Ruiqin Yang ^a, Weijian Tong ^a, Lijun Xu ^a, Lucas de Bondelon ^b,
Hongpeng Wang ^a, Ju Zhu ^a, Qing Ge ^a

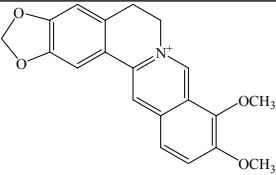
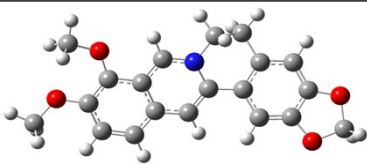
^a *Zhejiang Provincial Key Lab for Chem & Bio Processing Technology of Farm Produces, School of Biological and Chemical Engineering, Zhejiang University of Science and Technology, Hangzhou 310023, China.*

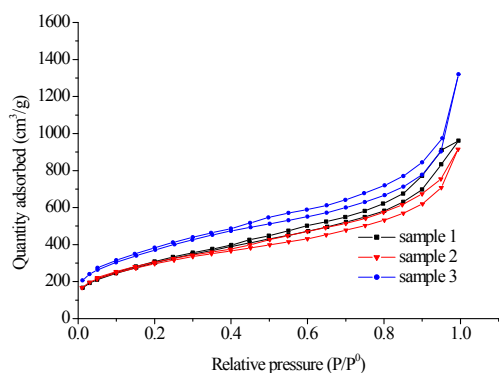
^b *Key Laboratory of Biomass Chemical Engineering of Ministry of Education, Department of Chemical and Biological Engineering, Zhejiang University, Hangzhou 310027, China.*

* Corresponding authors.

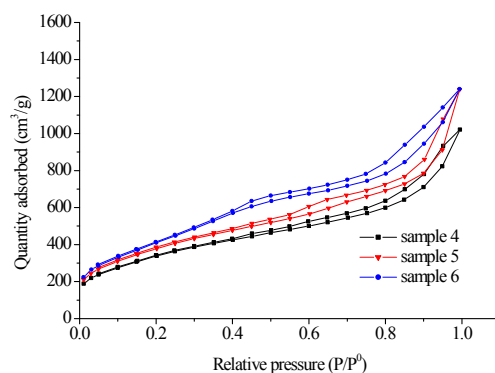
Yin Li, cherryli1986@126.com; +86-571-85070380

Table S1 The molecular structure, optimized molecular structure model and molecular size of berberine hydrochloride

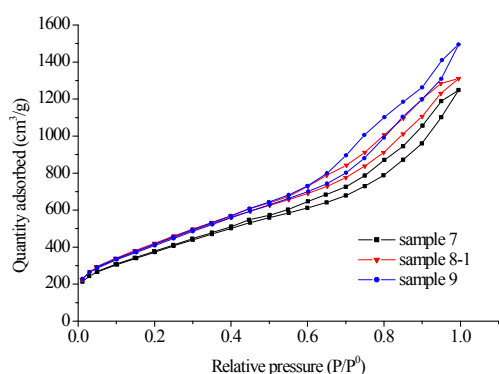
Substance	Molecular Structure	Optimized molecular structure model	Molecular size
Berberine hydrochloride			1.47 nm × 0.66 nm × 0.32 nm



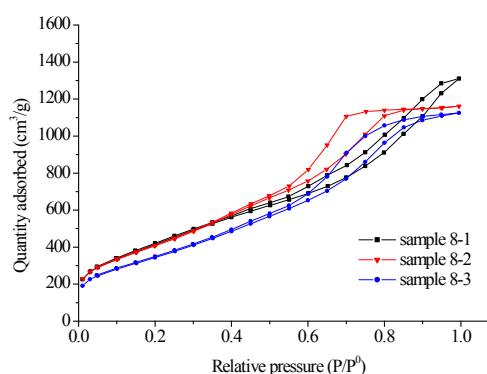
(a)



(b)

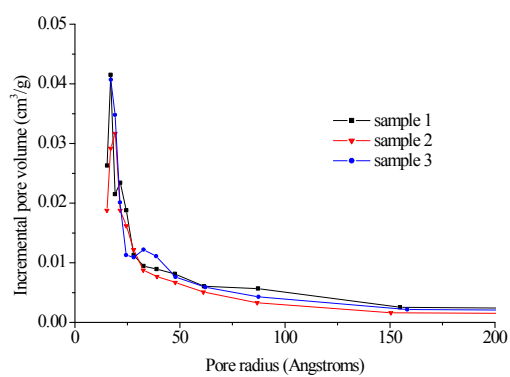


(c)

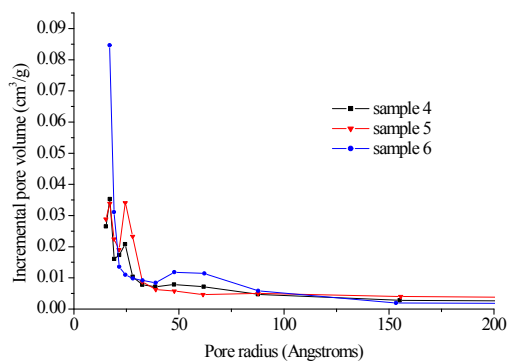


(d)

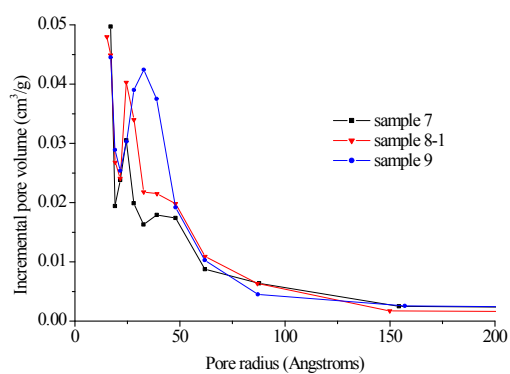
Fig. S1 Nitrogen adsorption-desorption isotherms of the mesoporous carbons at 77K: (a) sample 1-3 with the molar composition of P123/phenol at 0.021; (b) sample 4-6 with the molar composition of P123/phenol at 0.033; (c) sample 7, 8-1 and 9 with the molar composition of P123/phenol at 0.044; (d) sample 8-1, 8-2 and 8-3 with the carbonization temperature at 900, 800 and 700 °C, respectively.



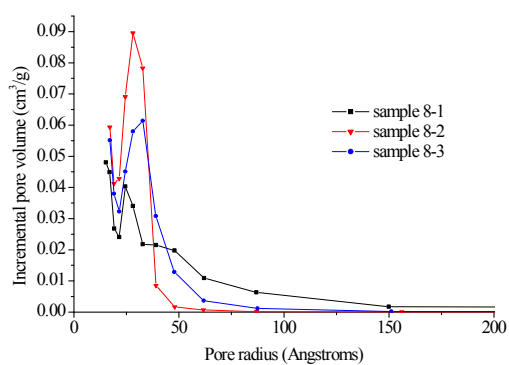
(a)



(b)



(c)



(d)

Fig. S2. pore diameter distributions of the mesoporous carbons: (a) sample 1-3 with the molar composition of P123/phenol at 0.021; (b) sample 4-6 with the molar composition of P123/phenol at 0.033; (c) sample 7, 8-1 and 9 with the molar composition of P123/phenol at 0.044; (d) sample 8-1, 8-2 and 8-3 with the carbonization temperature at 900, 800 and 700 °C, respectively.