

Supplementary materials for

Article

Resource Utilization of Lake Sediment to Prepare “Sponge” Light Aggregate: Pore Structure and Water Retention Mechanism Study

Yu Huang ^{1,2,3}, Kunpeng Li ¹, Chi Zhou ⁴, Xiaotian Du ¹, Jiangnan Peng ¹, Baowen Liang ¹, Ziyi Ding ¹ and Wen Xiong ^{1,2,3,*}

¹ School of Civil Engineering, Architecture and Environment, Hubei University of Technology, Wuhan 430068, China

² National Engineering Research Center for Advanced Technology and Equipment of Water Environmental Pollution Monitoring, Wuhan 430068, China

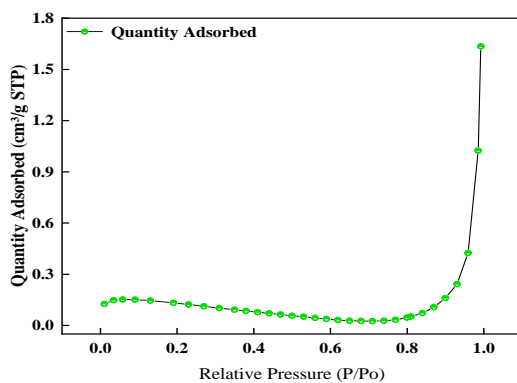
³ Hubei Key Laboratory of Ecological Restoration for River-Lakes and Algal Utilization, Wuhan 430068, China

⁴ Hubei Water Resources Research Institute, Hubei Water Resources and Hydropower Science and Technology Promotion Center, Wuhan 430070, China

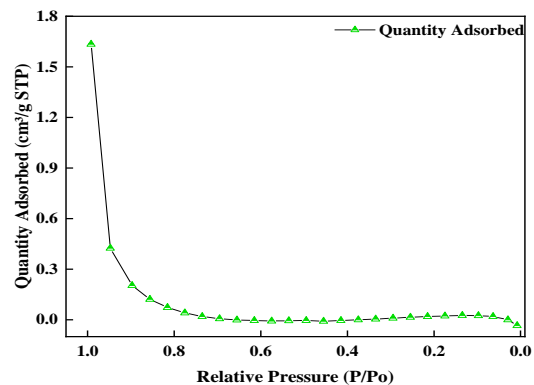
* Correspondence: 20171017@hbut.edu.cn; Tel.: +86-13907164835

Table S1. Analyze data

Anasyle index	Data
BET Surface Area	$0.65 \text{ m}^2 \cdot \text{g}^{-1}$
t-Plot micropore volume	$4.14 \times 10^{-4} \text{ cm}^3 \cdot \text{g}^{-1}$
BJH Desorption average pore diameter (4V/A)	31.58 nm



(a) Adsorption curve



(b) Desorption curve

Figure S1. Ceramic pellet adsorption and desorption isotherms.

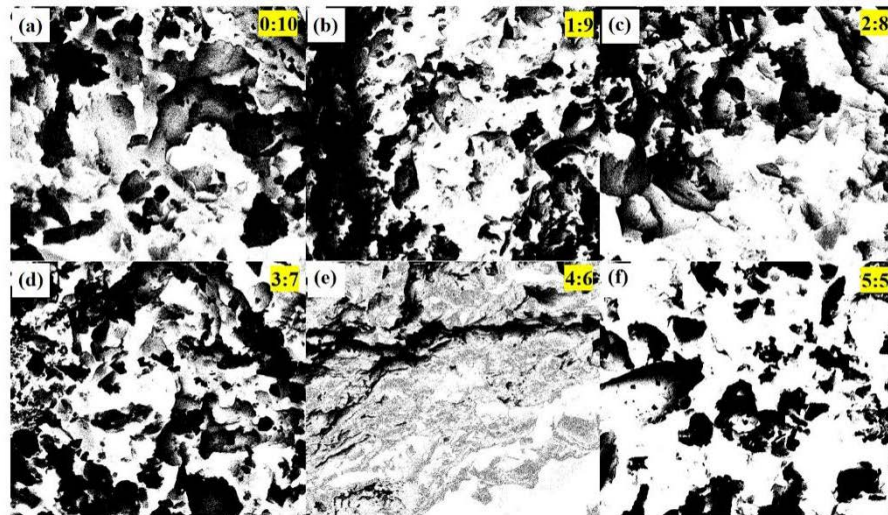


Figure S2. Two-dimensional SEM maps with different organic matter contents

Table S2. Analyze data

Parameters	Sum of Per Area (Obj./Total)
0:10	68.94%
1:9	71.24%
2:8	79.87%
3:7	80.12%
4:6	83.01%
5:5	89.88%