

Supporting Information (SI)

Eco-friendly Method for Wood Aerogel Preparation with Efficient Catalytic Reduction of 4-Nitrophenol

Qianqian Yu ^{1,2,†}, Xiaohan Sun ^{3,†}, Feng Liu ^{1,2}, Zhaolin Yang ³, Shulei Wei ¹, Chengyu Wang ³, Xin Li ⁴, Zechen He ⁴, Xiaodong Li ^{1,2,5,*} and Yudong Li ^{3,*}

- ¹ College of Chemistry and Bioengineering, Hechi University, Hechi 546300, China; 2022660001@hcnu.edu.cn (Q.Y.); liufeng0517@163.com (F.L.); 17807893551@163.com (S.W.)
- ² Guangxi Key Laboratory of Sericulture Ecology and Applied Intelligent Technology, Hechi University, Hechi 546300, China
- ³ Key Laboratory of Bio-Based Material Science and Technology of Ministry of Education, Northeast Forestry University, Harbin 150040, China; 18845890158@163.com (X.S.); 18845112698@163.com (Z.Y.); wangcy@nefu.edu.cn (C.W.)
- ⁴ Infrastructure and Maintenance Section, Logistics Management Service, Hechi University, Hechi 546300, China; 2022660002@hcnu.edu.cn (X.L.); hezechen1994@sina.com (Z.H.)
- ⁵ Guangxi Collaborative Innovation Center of Modern Sericulture and Silk, Hechi University, Hechi 546300, China
- * Correspondence: lxdong_627@163.com (X.L.); ydli@nefu.edu.cn (Y.L.)
- † These authors contributed equally to this work.

Table S1. List of results of FTIR

Chemical functional groups	Wavenumber (cm ⁻¹)
conjugated ν C–O of aromatic skeletal in lignin of softwood	1605
conjugated ν C–O of aromatic skeletal in lignin of hardwood	1593
formation vibration C–H in lignin and xylan	1463
ν C=O in xylan	1732
acetyl and hydroxyl of xylan of softwood	1265
acetyl and hydroxyl of xylan of hardwood	1236
δ C–H of cellulose	1423
bending vibration C–H of cellulose	1370
ν C=O in cellulose and hemicellulose	1158-987

Table S2. EDS results of DBSPd

Elements	weight percentage (%)	atomic percentage (%)
C	44.65	56.28
O	43.96	41.60
Zr	3.81	0.63
Pd	6.14	0.87

Table S3. Comparison of DBSPd with other published materials for catalytic reduction of 4-

Nitrophenol

Materials	k (min ⁻¹)	Time consuming (min)	4-Nitrophenol (mg·L ⁻¹)
DBSPd wood aerogel (this work)	2.300×10^{-2}	3	2.0×10^1
PVDF@PDA@Au membrane ^[1]	4.784×10^{-3}	8	1.0×10^2
Au-PDA-PVDF membrane ^[2]	4.784×10^{-3}	5	5.3×10^1
Ag/PAN fibrous network ^[3]	3.600×10^{-2}	70	2.5×10^1



Figure S1. The photo of NBS after soak in a methylene blue solution

Reference

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