

Supporting Information

Article

Improving Microbial Fuel Cell Performance Using Porous Capacitive Composite Bioanode Materials with Energy Storage Function

Yuyang Wang ^{*}, Guangxu Hu, Jing Dong and Jing Wang

School of Light Industry, Harbin University of Commerce, Harbin 150028, China; hgxx_2020@126.com (G.H.); dongjing0320@163.com (J.D.); wangwangmayong@126.com (J.W.)

^{*} Correspondence: wangyuyanglover@163.com; Tel: +86-45184865185; Fax: +86-45184865185

Table S1. Table of full name and abbreviation comparison.

Full Name	Abbreviation
Microbial fuel cell	MFC
Sponge/Carbon nanotube/Polypyrrole	S/CNT/PPy
Sponge/Carbon nanotube	S/CNT
Carbon nanotubes	CNTs
Stored charge	Q_s
Total charge	Q_t
Figure	Fig.

Table S2. List of recently reported anodes materials in the MFCs.

Anodes	Organic Substrate	Power Density	Synthesis Method
Loofah sponge	Acetate	1090 mW m ⁻²	Carbonization and polymerization
Kapok fibres	Acetate	1738 mW m ⁻²	Carbonization
Cotton textile	Acetate	931 mW m ⁻²	Carbonization and polymerization
Silk cocoon	Acetate	5 mW m ⁻²	Simple carbonization

References

- 35 Yuan, Y.; Zhou, S.; Liu, Y.; Tang, J. Nanostructured macroporous bioanode based on polyaniline-modified natural loofah sponge for high-performance microbial fuel cells. *Environ. Sci. Technol.* **2013**, *47*, 14525–14532. <https://doi.org/10.1021/es404163g>.
- 36 Zhu, H.; Wang, H.; Li, Y.; Bao, W.; Fang, Z.; Preston, C.; Vaaland, O.; Ren, Z.; Hu, L. Lightweight, conductive hollow fibers from nature as sustainable electrode materials for microbial energy harvesting. *Nano Energy* **2014**, *10*, 268–276. <https://doi.org/10.1016/j.nanoen.2014.08.014>.
- 37 Zeng, L.; Zhao, S.; He, M. Macroscale porous carbonized polydopamine-modified cotton textile for application as electrode in microbial fuel cells. *J. Power Sources* **2018**, *376*, 33–40. <https://doi.org/10.1016/j.jpowsour.2017.11.071>.
- 38 Lu, M.; Qian, Y.; Yang, C.; Huang, X.; Li, H.; Xie, X.; Huang, L.; Huang, W. Nitrogen-enriched pseudographitic anode derived from silk cocoon with tunable flexibility for microbial fuel cells. *Nano Energy* **2017**, *32*, 382–388. <https://doi.org/10.1016/j.nanoen.2016.12.046>.