Supporting Information

L-cysteine Tailored Porous Graphene Aerogel for Enhanced Power Generation of Microbial Fuel Cells

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Fig.S1.The FESEM images of rGO aerogels prepared with the concentration ratio of GO and Lcysteine is 1:1.



Fig.S2. XRD and FTIR of GO



Fig.S3.The N₂ adsorption-desorption isotherm and BJH pore size distribution (the inset) of rGO aerogels.



Fig.S4.Schematic illustration of the self-assembly process



Fig.S5 The water contact angle of G_{III} and G_0 (a: G_{III} , b: G_0)



Fig.S6 Cyclic voltammograms with a scan rate of 1 mV s⁻¹ conducted in *S. putrefaciens* cells suspensions in lactic acid medium



Fig.S7. Redox peak current of different electrodes conducted in S. putrefaciens cells suspended in lactic acid medium



Fig.S8 Cyclic voltammograms with a scan rate of 30 mV s⁻¹ conducted in M9 buffer (a), in M9 buffer with suspended S. putrifeciens cells (b), Cyclic voltammograms (c) with a scan rate of 30 mV s⁻¹ and Nyquist plots (d) conducted in S. putrefaciens cells suspensions in lactic acid medium



Fig.S9. Discharge performance of MFCs with different anodes



Fig.S10. SEM micrographs of S. putrefaciens cells adhered on G_0