

Supporting Information

Conductive hydrogel based on alginate and carbon nanotubes for probing microbial electroactivity

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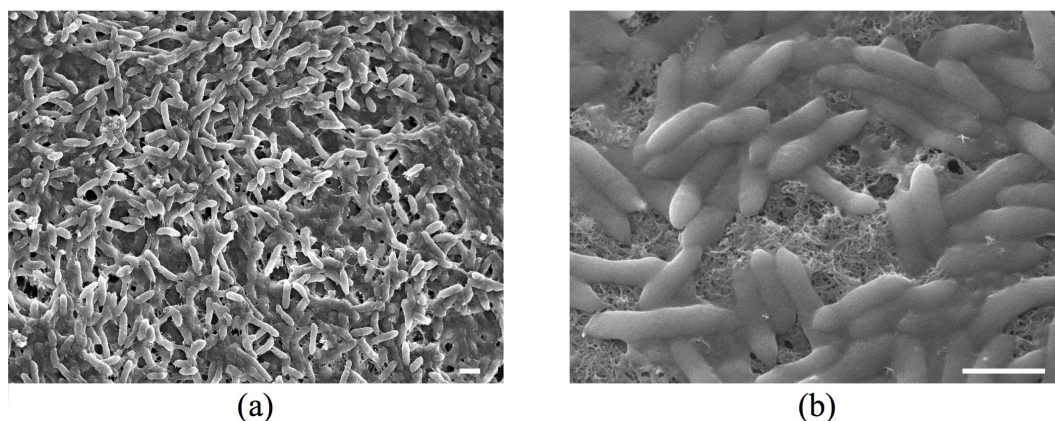


Figure S1: SEM images of a *G. sulfureduccens* biofilm formed on a carbon nanotubes substrate at two different magnifications. Scale bars represent 1 μm . Note the carbon nanotube substrate in (b) visible through holes of the biofilm. More details on the substrate fabrication and culture conditions can be find in Delord et al. 2017.

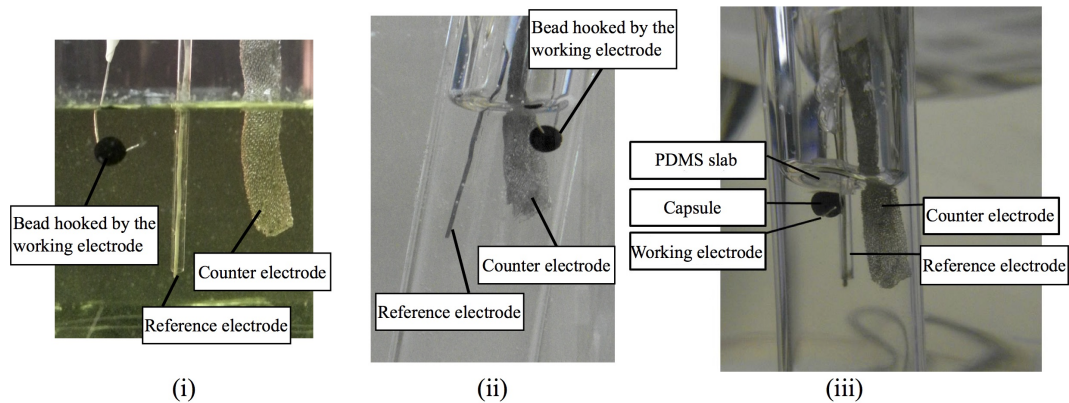


Figure S2: Pictures of the three different electrochemistry setups used in the present work for the characterization of (i) the composite hydrogel, the current generated by a biofilm that develops (ii) onto a bead or (iii) inside a liquid core capsule. Beads and capsule's size is around 3.5 mm.

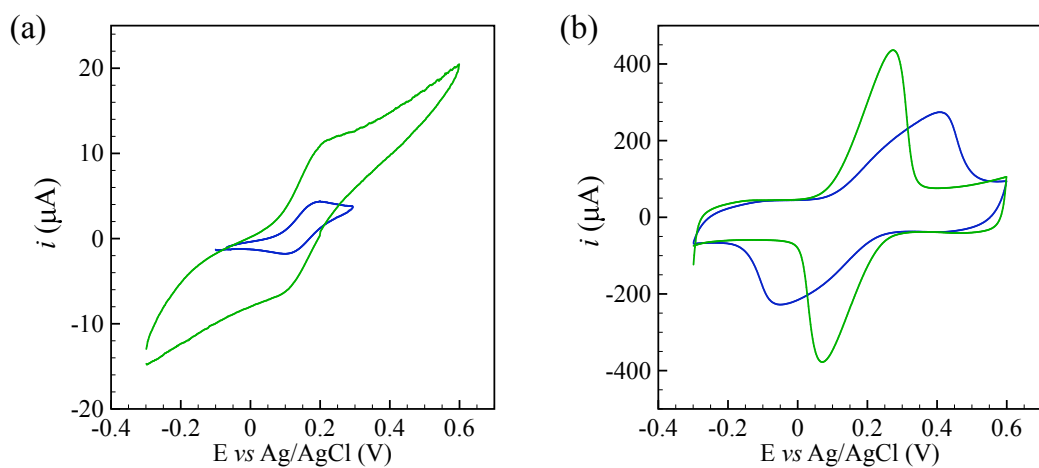


Figure S3: Cyclic voltammograms recorded at a scan rate of 10 mV/s for beads in ferrocenemethanol and made of 1.5 wt% of CNTs initially dispersed with Brij35, at different time during the dialysis step: (a) at $t = 30$ min (blue) and $t = 630$ min (green), (b) $t = 1\,300$ min (blue) and $t = 10\,000$ min (green).