

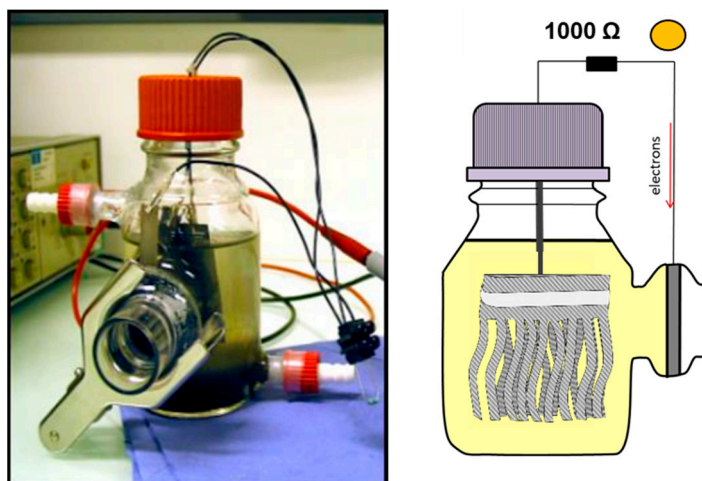
## **Supplementary Materials**

### **Study of bacterial adhesion under flow conditions in microbial fuel cell**

**Keywords:** Microbial fuel cells; shear stress; electroactive bacteria; anodic biofilms; bacterial adhesion.

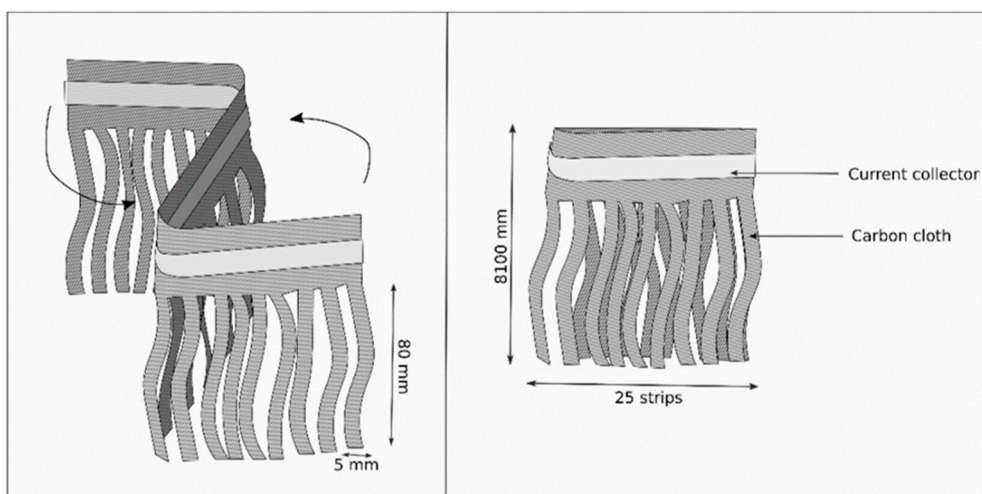
## S1. MFC setup and sampling

MFC bottles MFCs with a “classical” configuration were used (Figure S1). The cathode was an air cathode created by following the procedure of Cheng et al. [1]. It contains one catalytic slide (the inner side) and one diffusion side (the outer side). The catalytic side is composed of carbon powder with 5% platinum powder. The diffusion side is composed of 4 layers of PTFE (Polytetrafluoroethylene).



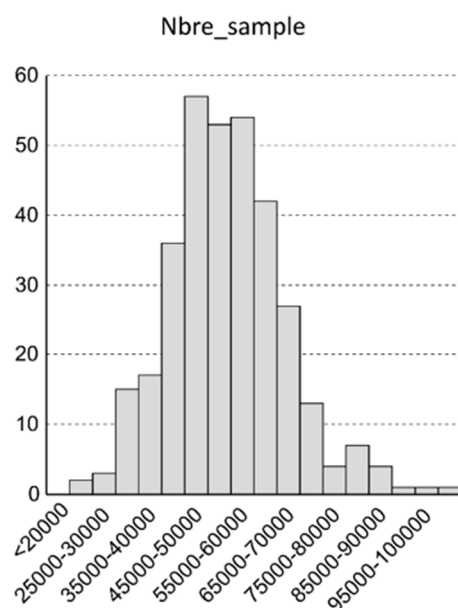
**Figure S1.** MFC bottle with an air cathode.

The anode consisted of one 10 x 15 cm piece of carbon cloth. The anode was constituted of 25 carbon cloth strips of 80 x 5 mm. A titanium strip was use as the collector.

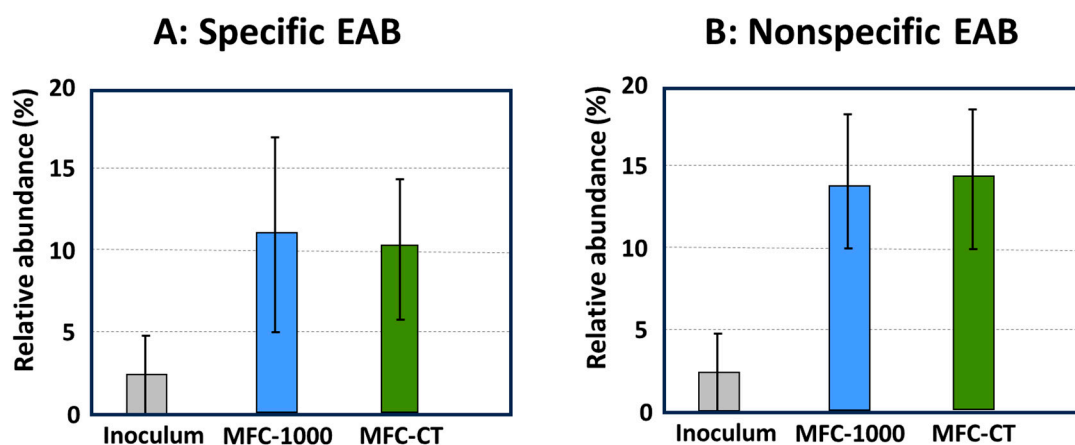


**Figure S2.** Schematic of the anodes.

The experiment was done in duplicate (a and b) separated by a period of 3 months. 2x4 MFCs were started with different external resistances: 1000 ohms (M-1000-a and M-1000-b), 330 ohms (M-330-a, M-330-b), without resistance (M-0-a and M-0-b) and two with an open circuit simulating an infinite resistant (M-inf-a, M-inf-b) (Figure S6).



**Figure S3.** Histogram of the repartition of the number of samples in function of the number of sequences



**Figure S4.** The relative abundance of EAB under static conditions. The error bars represent the standard deviations.

## Reference

1. Cheng, S.; Liu, H.; Logan, B.E. Increased Performance of Single-Chamber Microbial Fuel Cells Using an Improved Cathode Structure. *Electrochem. Commun.* **2006**, *8*, 489–494. <https://doi.org/10.1016/j.elecom.2006.01.010>.