

Supplementary Data

Table S1 Electricity production of original and evolved bacteria (external resistance is 1.8k Ω).

Bacteria	Open voltage (mV)	Power density (mW/m ³)
Origin	180	85
Generation I	330	205
Generation II	383	283
Generation III	680	1473

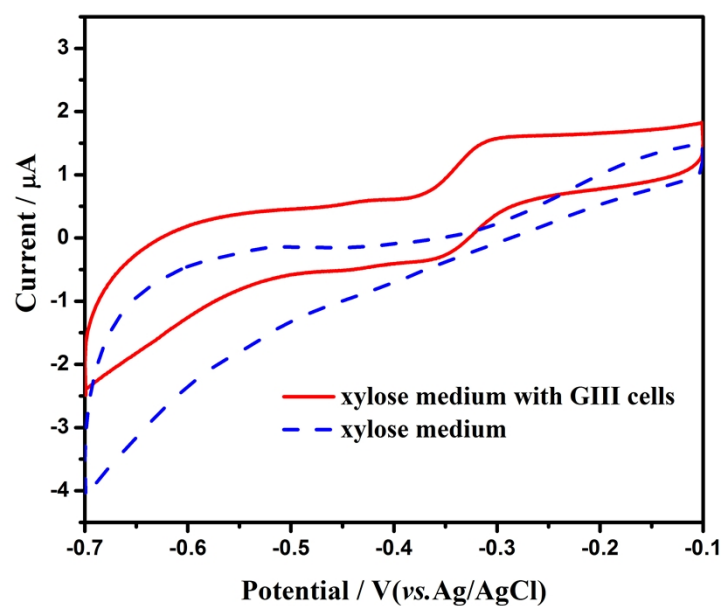


Fig. S1 CV curves of carbon fiber anode in xylose medium with and without GIII cells. (scan rate 1 mV s⁻¹)

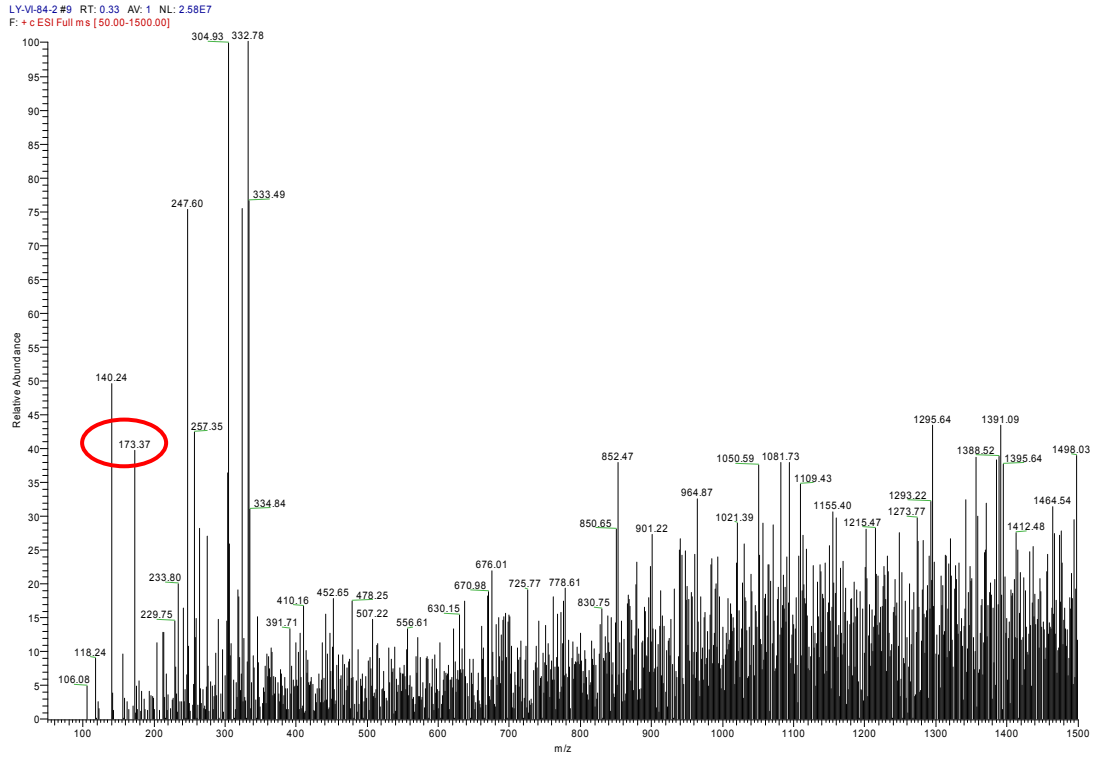


Fig.S2 HPLC-MSspectra of the supernatant

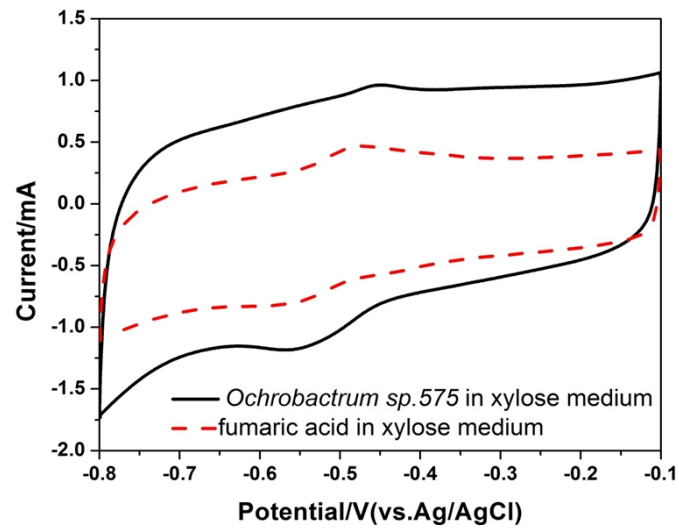


Fig.S3. Comparison of cyclic voltammograms between fumaric acid and *Ochrobactrum sp. 575* in xylose medium.

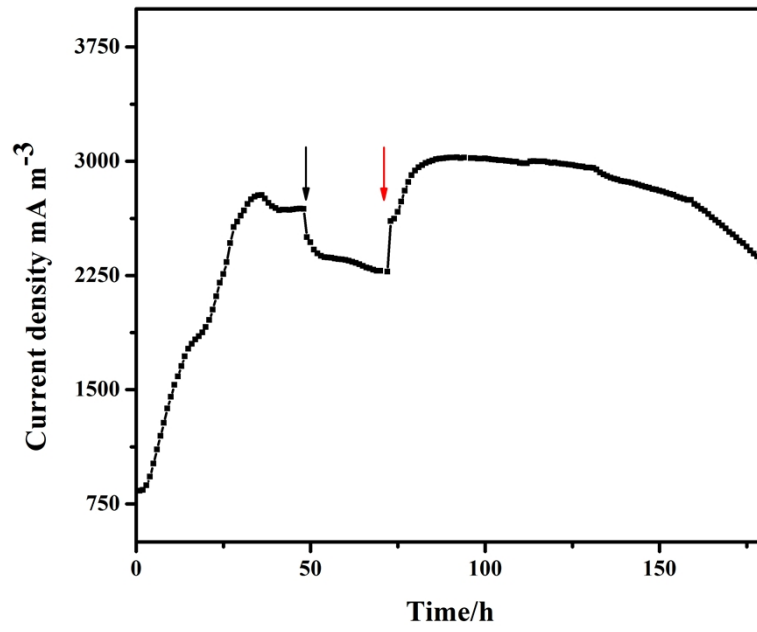


Fig.S4. Discharge profile of Generation III cells. The black arrow indicates the replace of anolyte with fresh medium. The red arrow indicates the addition of fumaric acid.