Electricity generation from inorganic sulfur containing mining wastewater by acidophilic microorganisms

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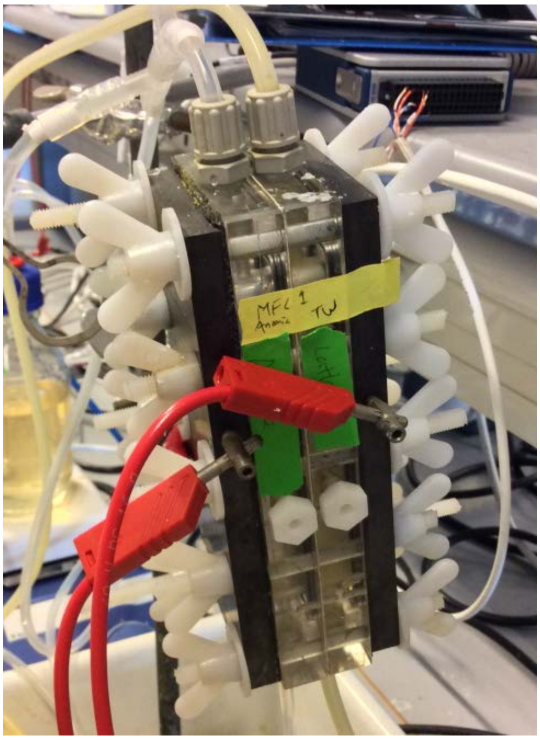
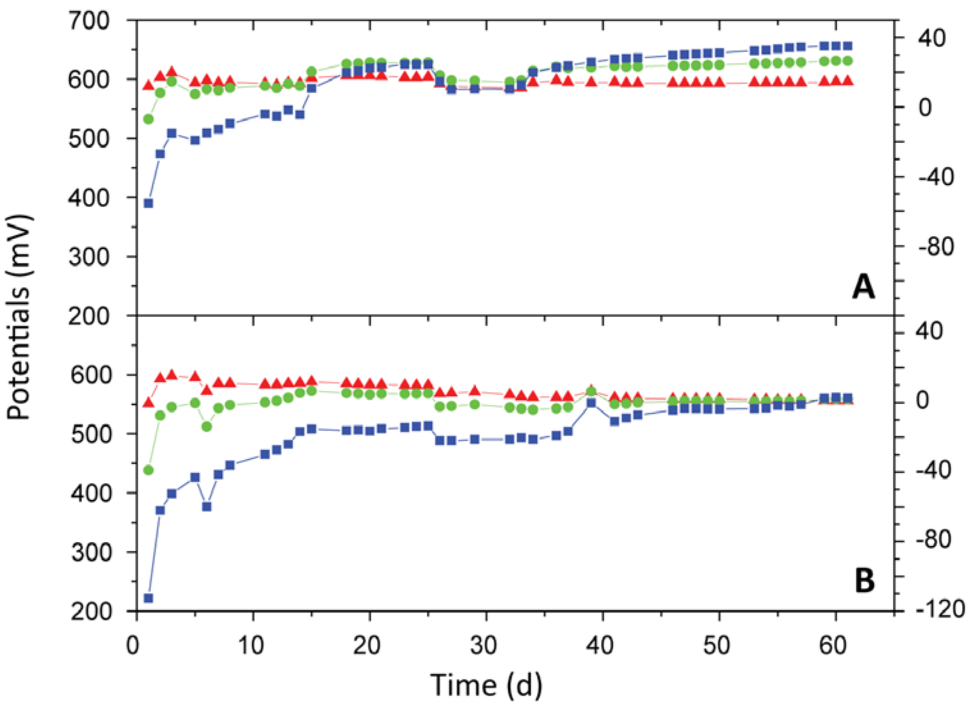
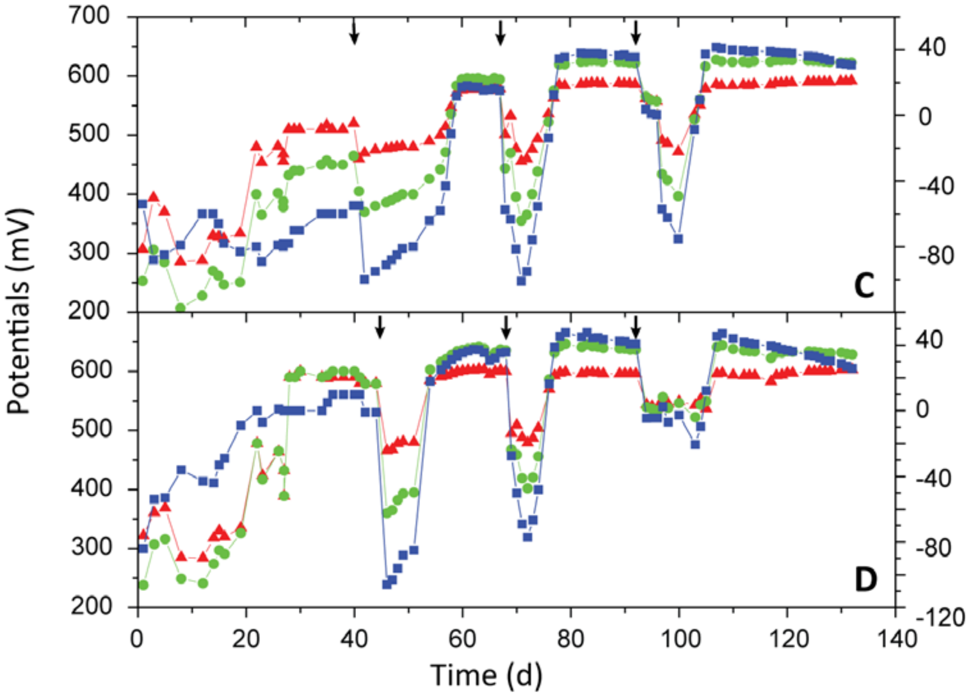
Supplemental Files

Supplemental File 1. Image of the MFCs used in this study.

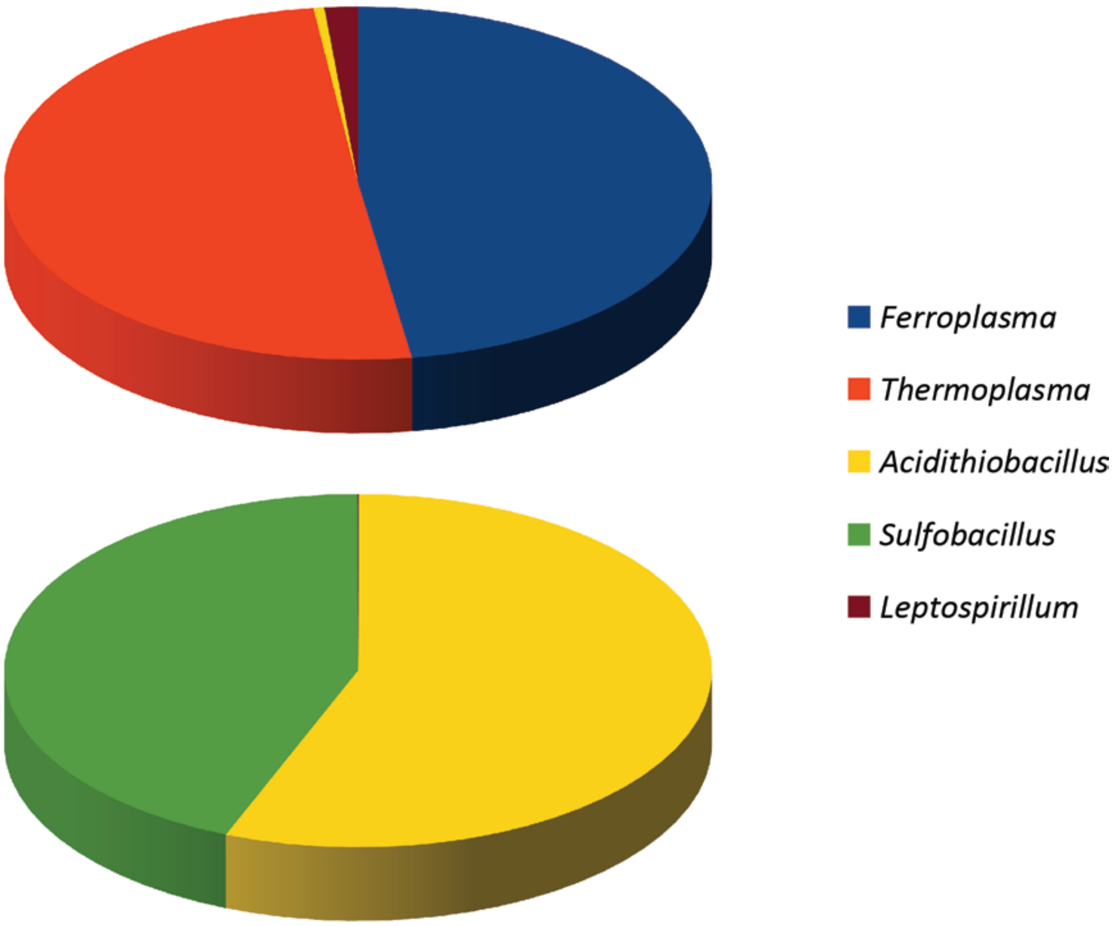


Supplemental File 2. Anode (▲) and cathode (●) potentials and whole cell voltage (■) of MFCs inoculated with the Kristineberg acid mine drainage stream sediment and fed with 5 mM tetrathionate (A) and a mixture of 3 mM tetrathionate + 3 mM thiosulfate (B). Vaasa acid sulfate soil inoculated MFCs were fed with 5 mM tetrathionate (C) or 5 mM thiosulfate (D). Addition of extra substrate is marked by arrows.





Supplemental File 3. Pie charts of the dominant members of the microbial community from the tetrathionate fed, cation exchange membrane MFCs inoculated with the Kristineberg acid mine drainage stream sediment (top) and Vaasa acid sulfate soil (bottom). Unidentified populations were <0.1% of the 16S rRNA gene reads.



Supplemental File 4. Cyclic voltammograms for the cation exchange membrane MFC in the presence of mineral salts medium plus tetrathionate and corresponding abiotic control (MFC2); anion exchange membrane with 100% process wastewater with no additional tetrathionate and corresponding abiotic control (MFC3); and anion exchange membrane with mineral salts medium plus tetrathionate and corresponding abiotic control (MFC4).