**Supporting Information for Publication**

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**The change in biotic and abiotic soil components influenced by paddy soil microbial fuel cells loaded with various resistances**

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**Table and Figure Legends**

**Table S1.** Similarity-based OTUs and species richness and diversity estimates.

**Figure S1.** Anode (filled symbols) and cathode (open symbols) polarization curves. The error bars represent standard error of measured concentrations of triplicate samples.

**Figure S2.** Rarefaction curves based on MiSeq sequencing of bacterial communities showing the diversity of OTUs (similarity cut off of 97%). OTUs, Operational Taxonomic Units

**Figure S3.** Non-metric multidimensional scaling (NMDS) analysis of the sMFC and controls bacterial community composition based on Bray–Curtis dissimilarity matrix for bacterial communities that consisted of OTUs (97% similarity level).

**Figure S4.** Relative abundance of bacterial community composition at phylum ((a) anode vicinity and (b) bulk soil) and class level ((a) anode vicinity and (b) bulk soil).

**Figure S5.** Variations in Nickel in soil porewater along with incubation time. a and b represent nickel concentration in the bulk soil and anode vicinity respectively. The error bars represent standard error of measured concentrations of triplicates samples.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sample ID** | **Reads** | **ACE** | **Chao1** | **Shannon index** | **Simpson** | **Good's Coverage** |
| 50Ω-S | 65782 | 1062 | 1079 | 8.28 | 0.991 | 0.997 |
| 80Ω-S | 61413 | 1058 | 1080 | 8.22 | 0.991 | 0.998 |
| 200Ω-S | 61978 | 1055 | 1064 | 7.99 | 0.988 | 0.997 |
| 1000Ω-S | 64995 | 1049 | 1057 | 8.08 | 0.989 | 0.998 |
| 2000Ω-S | 60396 | 1054 | 1069 | 8.16 | 0.990 | 0.997 |
| Control-S | 56614 | 1003 | 1010 | 7.89 | 0.986 | 0.997 |
| 50Ω-A | 52651 | 1083 | 1097 | 7.81 | 0.987 | 0.996 |
| 80Ω-A | 52177 | 1061 | 1064 | 7.79 | 0.986 | 0.997 |
| 200Ω-A | 50053 | 1055 | 1067 | 7.52 | 0.982 | 0.996 |
| 1000Ω-A | 75216 | 1108 | 1123 | 8.10 | 0.989 | 0.997 |
| 2000Ω-A | 59405 | 1075 | 1086 | 7.77 | 0.986 | 0.997 |
| Control-A | 60832 | 1097 | 1104 | 8.24 | 0.991 | 0.997 |

Notes S and A: represents samples collected from bulk soil and anode vicinity respectively.









