

## Supplementary Material

Enhancement of sludge decomposition and hydrogen production from  
waste activated sludge in microbial electrolysis cell with cheap electrodes

Yinghong Feng<sup>a</sup>, Yiwen Liu<sup>b</sup>, Yaobin Zhang<sup>a,\*</sup>

<sup>a</sup> Key Laboratory of Industrial Ecology and Environmental Engineering (Dalian  
University of Technology), Ministry of Education, School of Environmental Science  
and Technology, Dalian University of Technology, Dalian 116024, China.

<sup>b</sup> Advanced Water Management Centre, The University of Queensland, QLD,  
Australia

---

\* Corresponding author. Tel: +86 411 8470 6460, Fax: +86 411 8470 6263.

E-mail address: [zhangyb@dlut.edu.cn](mailto:zhangyb@dlut.edu.cn) (Y. Zhang)

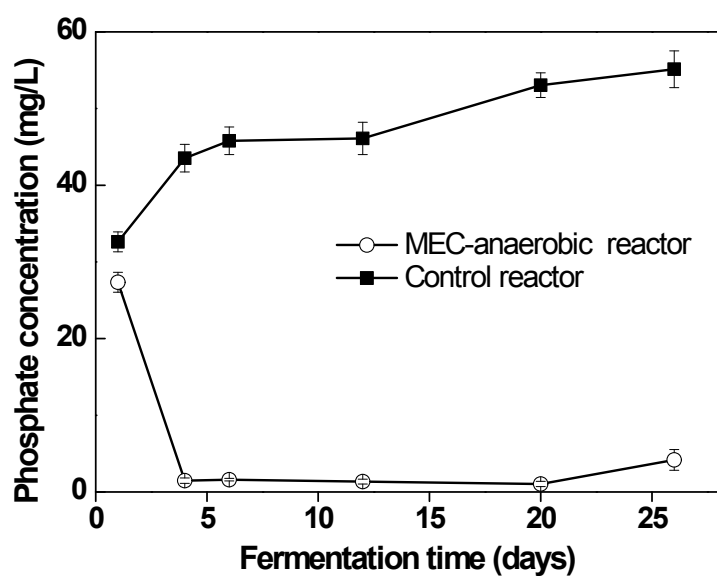


Figure S1 - Phosphate concentration during digestion.

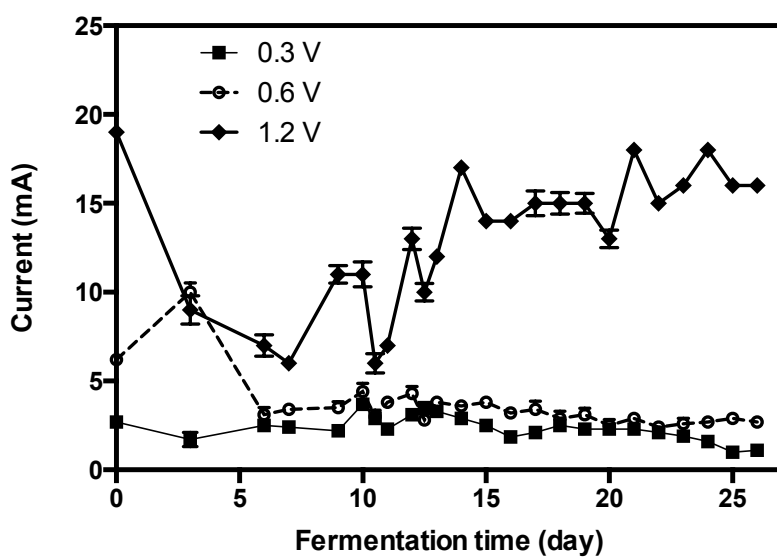
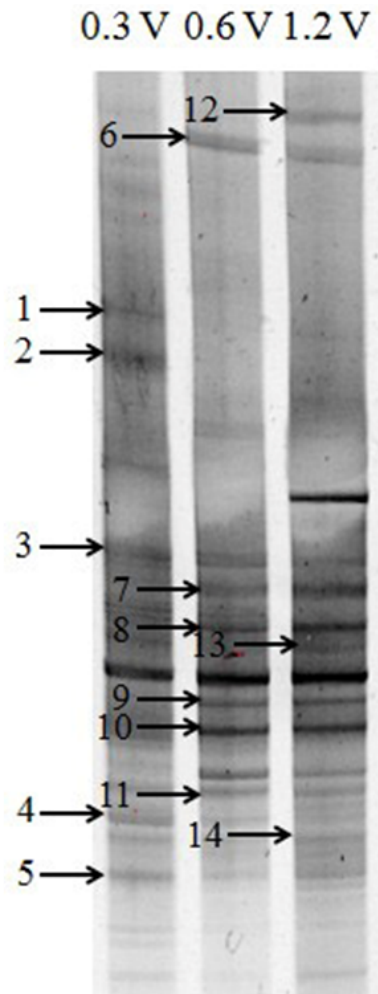


Figure S2 - Current during digestion from MEC-anaerobic reactor with different voltage.



**Figure S3 - DGGE profiles of bacterial 16S rRNA genes from MEC-anaerobic reactor with different voltage. The gels with band were collected from the DGGE gel and labeled as bands 1-14. The sequencing results of each band are shown in Table S1.**

**Table S1 - Sequence analysis of DGGE bands.**

Band	Closest match	Identity (%)	Class
1	<i>Clostridium ultunense</i> Meestris (NR025151)	94	<i>Clostridia</i>
2	<i>Clostridium orbiscindens</i> (NR029356)	99	<i>Clostridia</i>
3	<i>Methylocella silvestris</i> (NR074237)	98	<i>Alphaproteobacteria</i>
4	<i>Gluconobacter japonicus</i> (NR041445)	98	<i>Alphaproteobacteria</i>
5	<i>Gluconacetobacter diazotrophicus</i> (NR074292)	98	<i>Alphaproteobacteria</i>
6	<i>Cellvibrio fibrivorans</i> (NR025420)	99	<i>Gammaproteobacteria</i>
7	<i>Ruminococcus flavefaciens</i> (NR025931)	95	<i>Clostridia</i>
8	<i>Cellvibrio mixtus</i> (NR041884)	97	<i>Gammaproteobacteria</i>
9	<i>Ochrobactrum anthropi</i> (NR074243)	100	<i>Alphaproteobacteria</i>
10	<i>Clostridium cellulovorans</i> (NR102875)	95	<i>Clostridia</i>
11	<i>Acetobacter ghanensis</i> (NR 044046)	96	<i>Alphaproteobacteria</i>
12	<i>Rhodoferrax ferrireducens</i> (NR074760)	97	<i>Betaproteobacteria</i>
13	<i>Acetivibrio ethanolgignens</i> (NR104783)	95	<i>Clostridia</i>
14	<i>Cellvibrio ostraviensis</i> (NR025552)	98	<i>Gammaproteobacteria</i>