

ERRATUM

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Erratum to: Anoxic metabolism and biochemical production in *Pseudomonas putida* F1 driven by a bioelectrochemical system

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Erratum to: *Biotechnol Biofuels* (2016) 9:39 DOI 10.1186/s13068-016-0452-y

After the publication of the article [1], it was brought to our attention that some of the data in Table 2 were incorrect. Please find a correct and updated version of Table 2 in the erratum. Following this Fig. 1 has also been updated; the correct version of Fig. 1 is given in this erratum.

Also, during the calculation of specific glucose uptake rate, the authors mistakenly used the unit mmol/L as mmol, and therefore it caused some errors in the calculations of production rate (Table 2) and ATP regeneration rate (Section “Flux balance analysis”—[1]) which need to be corrected. The corrected ATP regeneration rates are 0.02 and 0.38 mmol_{ATP}/(gCDW h) for [Co(bpy)₃](ClO₄)₂ from glucose oxidation and membrane-bound ATP synthase respectively, while those numbers for K₃[Fe(CN)₆] are 0.05 and 0.64 mmol_{ATP}/(gCDW h), respectively.

Table 2 Key process parameters of anaerobic glucose conversion of *P. putida* F1 in the anode compartment of a BES using [Co(bipy)₃]^{3+/2+} or [Fe(CN)₆]^{3-/4-} as electron acceptors while poisoning the anode at +0.697 V vs SHE

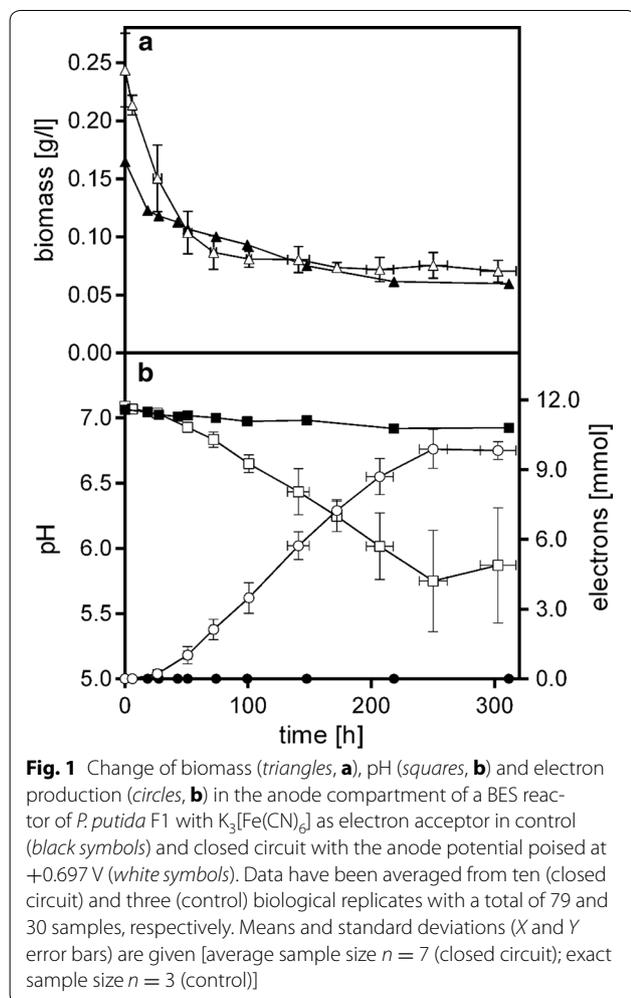
| | [Co(bipy) ₃] ^{3+/2+} | [Fe(CN) ₆] ^{3-/4-} |
|--|---|---|
| Carbon balance (%) | 99.6 | 97.6 |
| Coulombic efficiency (%) | 98.5 | 93.3 |
| Yields (mol _{product} /mol _{glucose}) | | |
| Y _{2KGA} | 0.90 ± 0.03 | 0.90 ± 0.02 |
| Y _{acetic acid} | 0.073 ± 0.008 | 0.144 ± 0.012 |
| Y _{gluconic acid} | 0.31 ± 0.06 | 0.09 ± 0.03 |
| Y _{electrons} | 0.25 ± 0.03 | 0.09 ± 0.04 |
| Rates (mmol/(gCDW h)) | | |
| r _{glucose} | 3.94 ± 0.11 | 3.88 ± 0.07 |
| r _{glucose} | −0.26 ± 0.04 | −0.35 ± 0.07 |
| r _{acetic acid} | 0.019 ± 0.003 | 0.051 ± 0.010 |
| r _{2KGA} | 0.23 ± 0.04 | 0.32 ± 0.06 |
| r _{gluconic acid} | 0.08 ± 0.02 | 0.03 ± 0.01 |
| r _{gluconic acid} | −0.06 ± 0.01 | −0.03 ± 0.02 |
| r _{electrons} | 1.02 ± 0.18 | 1.37 ± 0.26 |

Data are fitted with linear regression using datasets from ten ([Fe(CN)₆]^{3-/4-}) and four ([Co(bipy)₃]^{3+/2+}) biological replicates with a total of 79 and 36 samples, respectively (compare Additional file 1: Fig. S3). Carbon balance is calculated from the fitted rates considering carbon content of molecules and assuming equimolar CO₂ production when making acetate from glucose. Gluconic acid is a product in the first 100 h and serves as a substrate thereafter, hence 2 yields and rates are given

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Reference

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