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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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 $[Co(bpy)_3](ClO_4)_2$ from glucose oxidation and membrane-bound ATP synthas respectively, while those numbers for $K_3[Fe(CN)_6]$ 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 poising 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 _{alucose})		
Y _{2KGA}	0.90 ± 0.03	0.90 ± 0.02
$Y_{\rm acetic \ acid}$	0.073 ± 0.008	0.144 ± 0.012
$Y_{gluconic acid}$	0.31 ± 0.06	0.09 ± 0.03
5	0.25 ± 0.03	0.09 ± 0.04
Y _{electrons}	3.94 ± 0.11	3.88 ± 0.07
Rates (mmol/(gCDW h))		
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
-	-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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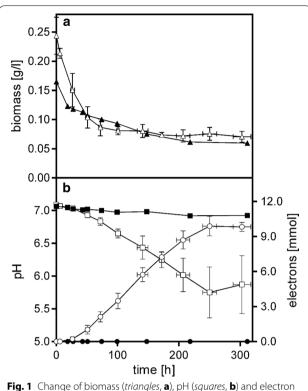


Fig. 1 Change of biomass (*triangles*, **a**), pH (*squares*, **b**) and electron production (*circles*, **b**) in the anode compartment of a BES reactor of *P. putida* F1 with K_3 [Fe(CN)₆] as electron acceptor in control (*black symbols*) and closed circuit with the anode potential poised at +0.697 V (*white symbols*). Data have been averaged from ten (closed circuit) and three (control) biological replicates with a total of 79 and 30 samples, respectively. Means and standard deviations (*X* and *Y* error bars) are given [average sample size n = 7 (closed circuit); exact sample size n = 3 (control)]

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