

CORRECTION

[View Article Online](#)
[View Journal](#) | [View Issue](#)Cite this: *Green Chem.*, 2021, **23**, 5736

Correction: *In situ* electrochemical H₂ production for efficient and stable power-to-gas electromethanogenesis

Frauke Kracke,^{*a} Jörg S. Deutzmann,^{*a} Wenyu Gu^a and Alfred M. Spormann^{*a,b}DOI: 10.1039/d1gc90069b
rsc.li/greenchemCorrection for '*In situ* electrochemical H₂ production for efficient and stable power-to-gas electromethanogenesis' by Frauke Kracke *et al.*, *Green Chem.*, 2020, **22**, 6194–6203, DOI: 10.1039/D0GC01894E.

A value was omitted from the original version of Table 1.

Two values should have been present in column 5 of Table 1 with respect to the entry for Liu,¹² detailing the use of a mixed thermophilic strain.The cathode potential [V] vs. SHE entry for the work of Liu¹² should read as “−0.32 (GAC); −0.72 (GG)”, noting the different potentials obtained with activated carbon (GAC) and graphite granules (GG).

The updated table is shown below and replaces the version included within the original manuscript.

^aDepartment of Civil & Environmental Engineering, Stanford University, Stanford, California, USA. E-mail: fkracke@stanford.edu, jdeutzma@stanford.edu, spormann@stanford.edu^bDepartment of Chemical Engineering, University, Stanford, California, USA

Table 1 Comparison of key performance parameters of the presented work and key literature studies of electromethanogenesis

Strain	Duration [h]	Operating conditions	Cathode material	Cathode potential [V] vs. SHE	Current density [A m ⁻²]	CH ₄ production rate ^a [L L ⁻¹ day ⁻¹]	CE [%]	Lead author, year
Mixed cultures								
Mixed (<i>Methanobacterium</i> dominated)	172	H-cell, batch fed	Graphite felt	-0.7	2.86	0.065	92	Baek, 2017 ⁸
Mixed thermophilic (<i>Methanothermobacter</i> dominated)	120	Single chamber; high pressure (5 MPa), high temperature (55 °C)	Carbon cloth	Na	3.33	0.068	80	Kobayashi, 2017 ⁹
Mixed thermophilic	3288	Single chamber, membrane-less, batch-fed medium, continuous CO ₂ -fed, high temperature (60 °C)	Graphite disk	-0.65	4.94	0.090	71	Song, 2019 ¹⁰
Mixed	840	Flat-plate reactor, flow through, continuous-fed	Graphite felt	-0.7	2.90	0.173	52–74	Van Eerten-Jansen, 2015 ¹¹
Mixed thermophilic (<i>Methanobacter</i> dominated)	480	Flat-plate reactor, flow through, continuous-fed, 3D cathode	Activated carbon (GAC) and graphite granules (GG)	-0.32 (GAC); -0.72 (GG)	35.00	0.228	66	Liu, 2018 ¹²
Mixed thermophilic (<i>Methanothermobacter</i> dominated)	24	H-cell, batch fed, high temperature (55 °C)	Carbon cloth	-0.8	0.20	0.236	91	Fu, 2015 ¹³
Mixed (<i>Methanobacter</i> dominated)	<24	Redox-flow-battery, flow-through, batch-fed	Graphite felt	-1.08	35.00	0.350	64	Geppert, 2019 ¹⁴
Mixed	24	H-cell, batch fed	Carbon felt	-0.95	13.00	0.527	57	Jiang, 2013 ¹⁵
Pure cultures								
<i>IM 1</i> (marine 30C)	24	Two-chamber (salt-bridge), batch fed	Graphite rod	-0.4	0.05	0.0003	80	Beese-Vasbender, 2015 ³
<i>Methanococcus maripaludis</i>	80	H-cell, batch fed	Graphite rod	-0.7	0.22	0.002	59	Mayer, 2019 ¹⁶
<i>Methanococcus maripaludis</i>	250	Two-chamber pilot-scale reactor, continuous CO ₂ -fed	Carbon laying	-0.9	0.09	0.006	113	Enzmann, 2019 ¹⁷
<i>Methanococcus maripaludis</i>	48	H-cell, batch fed	NiMo coated graphite rod	-0.6	10.00	0.018	95–100	Kracke, 2019 ⁴
<i>Methanothermobacter thermautotrophicus</i> strain ΔH	140	Single chamber, batch-fed	Carbon coated carbon paper	-1	3.00	0.080	20	Hara, 2019 ¹⁸
<i>Methanococcus maripaludis</i>	450	Bubble column, continuous CO ₂ -fed	Carbon laying	-0.9	1.10	0.174	63	Enzmann, 2019 ¹⁹
<i>Methanococcus maripaludis</i>	840	H-cell, continuous CO ₂ -fed	NiMo coated graphite rod	-0.65	10.00	1.38	98	Kracke & Deutzmann this study

^a Volumetric methane production rate is presented per culture volume.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

