

Supplementary material as part of:

High rate biomethanation of carbon monoxide rich gasses via a thermophilic synthetic co-culture.

Martijn Diender¹, Philipp S. Uhl¹, Johannes H. Bitter², Alfons J.M. Stams^{1,3} and Diana Z. Sousa^{1#}

¹Laboratory of Microbiology, Wageningen University, Stippeneng 4, 6708 WE, Wageningen, The Netherlands.

²Bio based chemistry & technology, Wageningen University, Bornse Weilanden 9, 6708 WG, Wageningen, The Netherlands.

³Centre of Biological Engineering, University of Minho, Campus de Gualtar, 4710-057, Braga, Portugal.

[#]Corresponding author: diana.sousa@wur.nl

S1. Efficiency of methane production in CSTR batch reactors

A) Stirring speed in batch reactors vs. the utilization efficiency of hydrogen and carbon monoxide. Differences within similar stirring speeds can be attributed to differences in gas supply rate. Open circles: CO utilization efficiency, solid squares: H₂ utilization efficiency. B) Stirring speed in the reactors vs. the theoretical maximal methane production efficiency in the reactor.

