

**Photo fermentative biohydrogen production potential using microalgae-activated sludge
co-digestion in sequential flow batch reactor (SFBR)†**

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Figure S1



1. SFBR
2. Influent
3. Effluent
4. H₂ microsensor
5. pH controller
6. Gas port
7. Peristaltic pump

Figure S1.

Table S1. Nutrients for Z-medium

Component	Stock Solution (g/L dH₂O)²	Quantity Used (to 1 litre)
NaNO ₃	46.7	10 ml
Ca(NO ₃) ₂ ·4H ₂ O	5.9	10 ml
K ₂ HPO ₄	3.1	10 ml
MgSO ₄ ·7H ₂ O	2.5	10 ml
Na ₂ CO ₃	2.1	10 ml
Fe-EDTA solution	see following recipe	0.2 ml
Trace metals solution	see following recipe	0.08 ml

Fe-EDTA solution

Component	Quantity Used (to 250 mL dH₂O)
HCl (35%)	2.2 ml
FeCl ₃ ·6H ₂ O	4.5 g
Na ₂ EDTA	4.65 g

Trace metals solution

Component	Quantity Used (to 250 mL dH₂O)
H ₃ BO ₃	0.775 g
MnSO ₄ ·4H ₂ O	0.4225 g
Na ₂ WO ₄ ·2H ₂ O	0.022 g
(NH ₄) ₆ MoO ₂₄ ·4H ₂ O	0.0297 g
KBr	0.044 g
ZnSO ₄ ·H ₂ O	0.0365 g
Co(NO ₃) ₂ ·6H ₂ O	0.03125 g
CuSO ₄ ·5H ₂ O	0.0592 g
AlK(SO ₄) ₂ ·12H ₂ O	0.775 g

² dH₂O as deionized or distilled water

Table S2. Nutrients for TAP medium

Component	Amount Used (to 2 litre)	Stock Solution Recipe	Amount
Beijerinck's Solution	100 mL		
		NH ₄ Cl	8 g/L
		CaCl ₂ .2H ₂ O	1 g/L
		MgSO ₄ .7H ₂ O	2 g/L
Phosphate Buffer Stock Solution	17 mL		
		Na ₂ HPO ₄	11.62 g/L
		KH ₂ PO ₄	7.26 g/L
Hunter's Trace Stock Solution	2 mL		
		Na ₂ EDTA.2H ₂ O	50 g/L
		ZnSO ₄ .7H ₂ O	22 g/L
		H ₃ BO ₃	11.4 g/L
		MnCl ₂ .4H ₂ O	5.1 g/L
		FeSO ₄ .7H ₂ O	5 g/L
		CoCl ₂ .6H ₂ O	1.6 g/L
		CuSO ₄ .5H ₂ O	1.16 g/L
		(NH ₄) ₆ Mo ₇ O ₂₄ .4H ₂ O	1.1 g/L
Tris Acetate Stock Solution	20 mL		
		Trisma Base	121 g/500 mL
		Glacial Acetic Acid	50 mL/500 mL