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Supporting Information

**Anaerobic membrane gas extraction facilitates thermophilic hydrogen
production from *Clostridium thermocellum***

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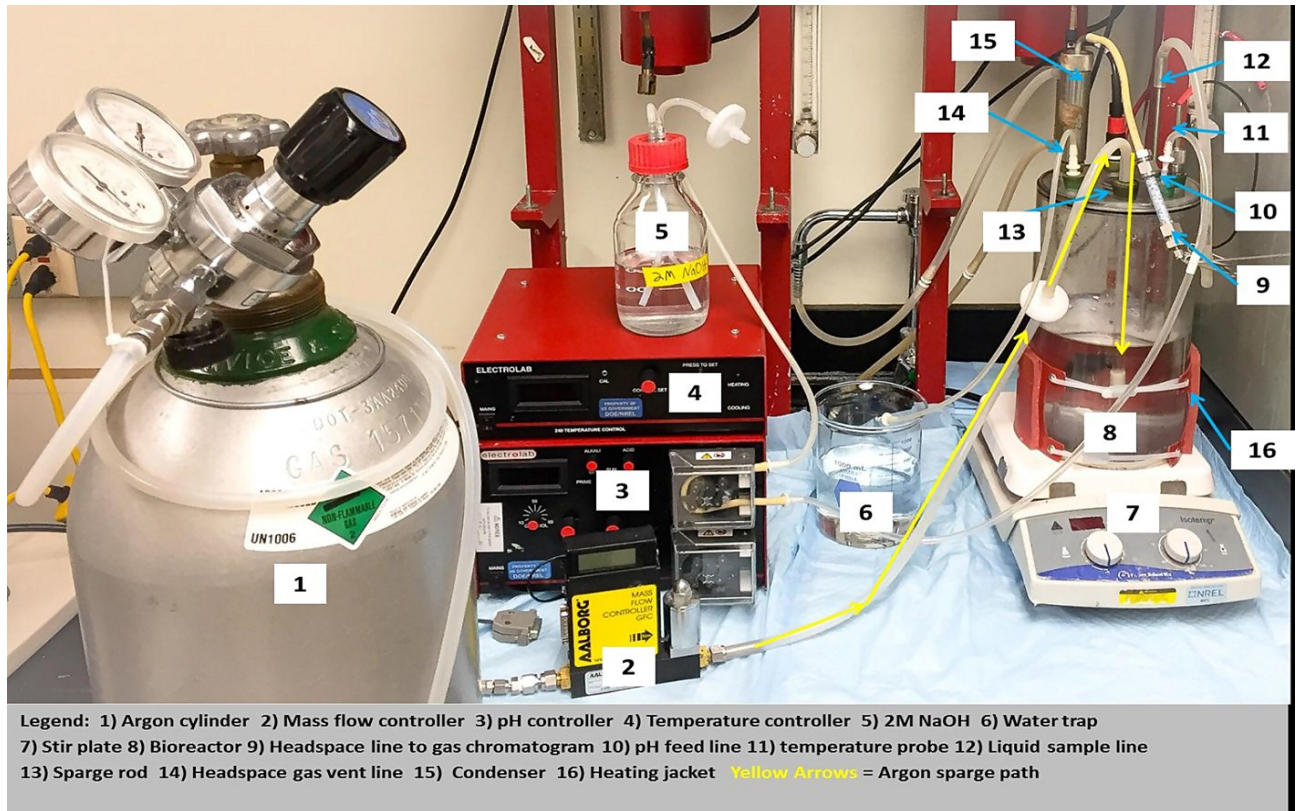
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28 **Supplemental Figures**



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30 **Figure S1:** Fermentation setup for the AF.

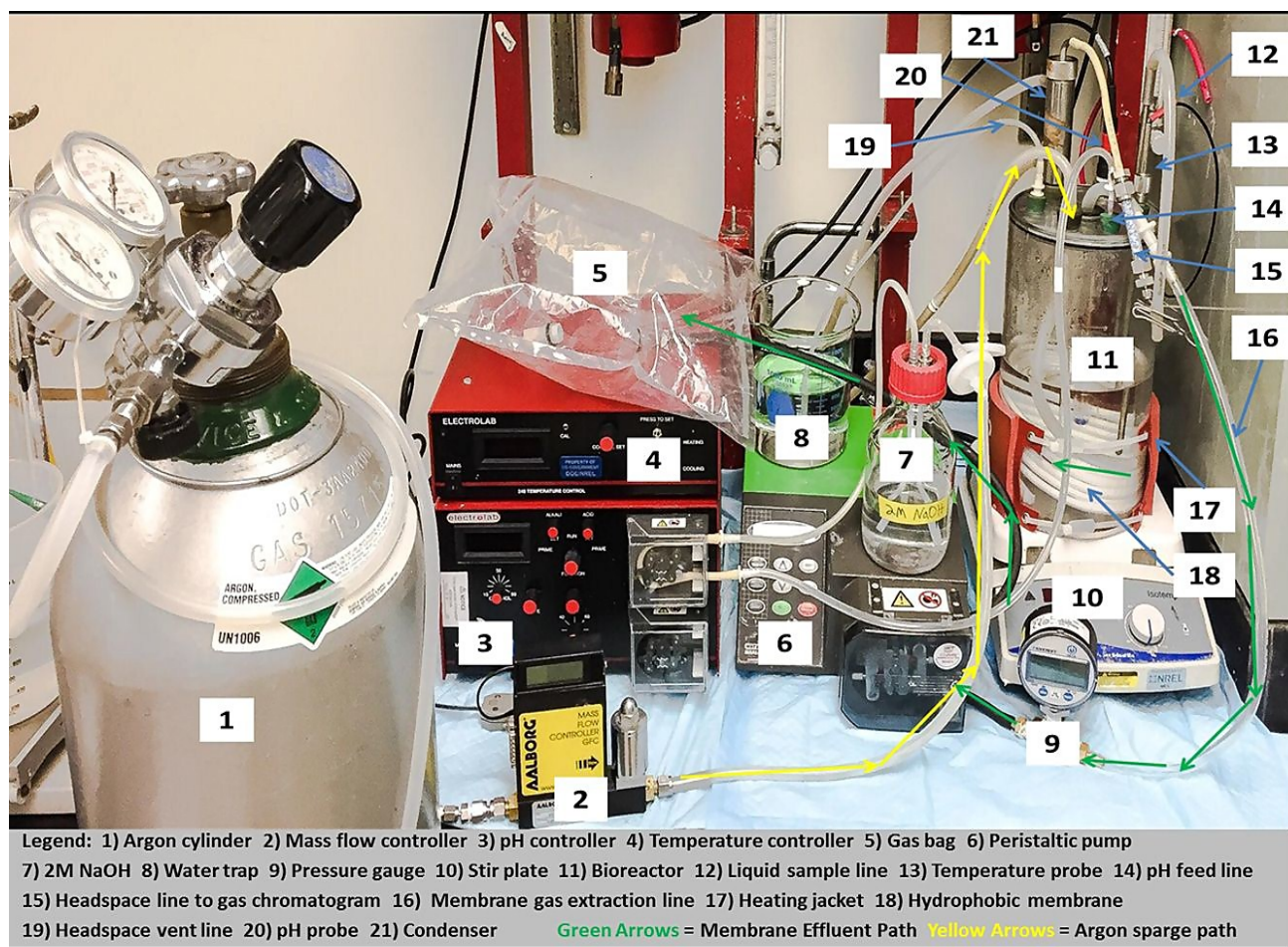


Figure S2: Fermentation setup for the AnMBR.

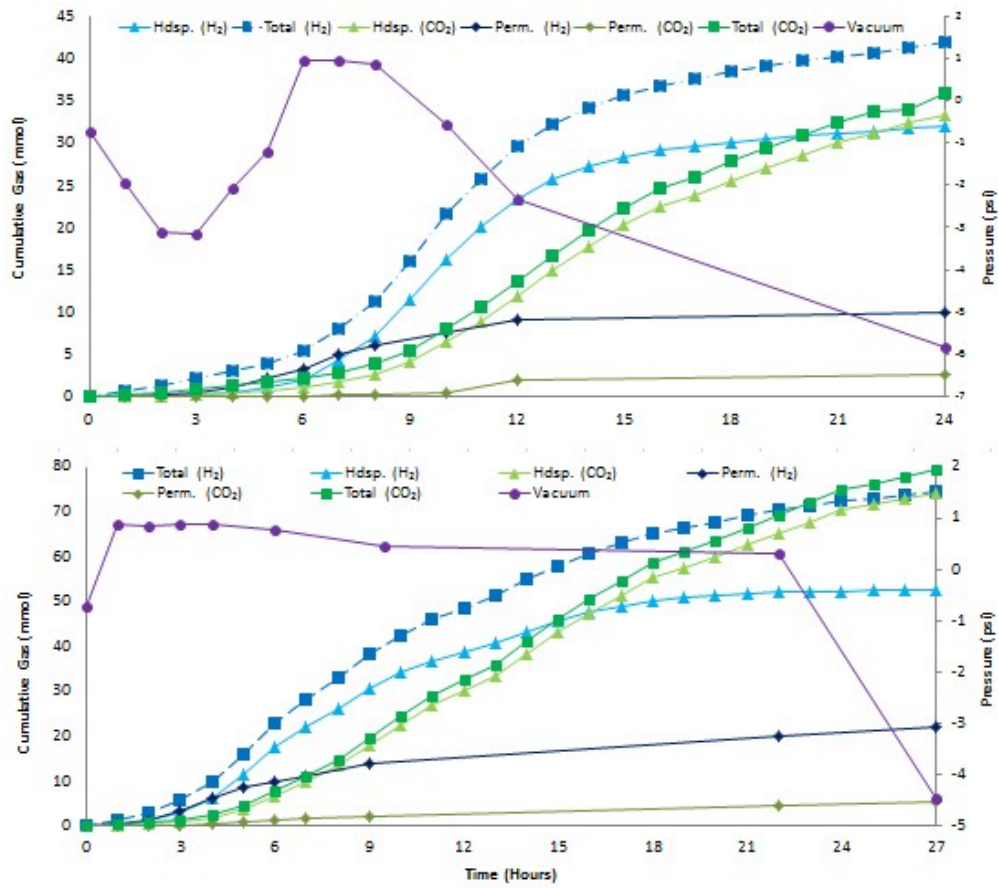


Figure S3: Cumulative AnMBR gas production and vacuum pressure vs. time on (A) Cellobiose (B) and on Avicel.

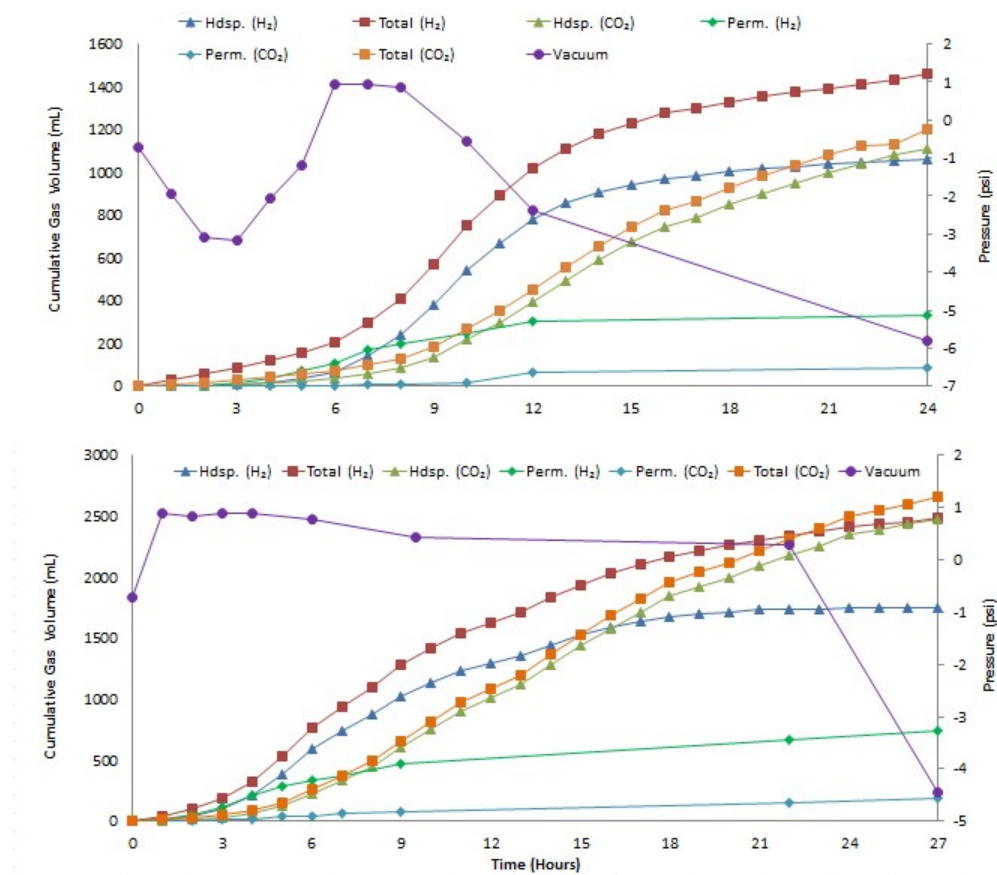


Figure S4: Cumulative volumetric AnMBR gas production and vacuum pressure vs. time on (A) Cellobiose (B) and on Avicel.

Table S1. Comparison of theoretically estimated and experimentally measured H₂ yields.

Substrate	Reactor Mode	H ₂ Yield	Substrate	Reactor Mode	H ₂ Yield
		(mmol H ₂ /			(mmol H ₂ /

mmol Hexose)				mmol Hexose)			
Cellobiose (5 g/L)	AF	Theoretical	0.66	Cellobiose (5 g/L)	AnMBR	Theoretical	0.70
	AF	Measured	0.43 ± 13%		AnMBR	Measured	0.68 ± 30%
		% of Theoretical	65% ± 13%			% of Theoretical	97% ± 30%
Avicel (5 g/L)	AF	Theoretical	1.23	Avicel (5 g/L)	AnMBR	Theoretical	1.84
	AF	Measured	0.76 ± 3%		AnMBR	Measured	1.21 ± 13%
		% of Theoretical	62% ± 3%			% of Theoretical	66% ± 13%

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