

Table S3 Steady State Data Summary. Results are expressed as mean \pm SD.									
RT (days)	Reactor 1			Reactor 2			Reactor 3		
	Mean \pm SD	# of data pts		Mean \pm SD	# of data pts		Mean \pm SD	# of data pts	
Fractional carbohydrate solubilization									
20	0.712 \pm 0.019	24		0.697 \pm 0.012	7		0.72 \pm 0.024	7	
10				0.664 \pm 0.026	7		0.644 \pm 0.014	7	
5				0.594 \pm 0.011	6		0.568 \pm 0.008	6	
3.3				0.542 \pm 0.024	2		0.535 \pm 0.010	2	
Biogas production rate (mL/day)									
20	465.3 \pm 16.8	76		416.8 \pm 18.9	25		458.2 \pm 29.9	25	
10				851.3 \pm 65.5	20		928.8 \pm 51.1	20	
5				1530.8 \pm 142.7	51		1694.4 \pm 117.6	51	
3.3				2422.8 \pm 283.1	10		2324.3 \pm 141.1	10	
Biogas composition									
	CH ₄ (%)	CO ₂ (%)		CH ₄ (%)	CO ₂ (%)		CH ₄ (%)	CO ₂ (%)	
20	50.3 \pm 1.5	39.7 \pm 1.4	38	50.9 \pm 0.9	45.1 \pm 0.7	20	49.9 \pm 0.9	42.6 \pm 0.7	20
10				49.1 \pm 1.3	47.2 \pm 1.3	10	47.5 \pm 1.3	44.8 \pm 1.1	10
5				47.8 \pm 0.6	47.6 \pm 2.4	11	46.9 \pm 1.1	46.0 \pm 3.1	11
3.3				46.4 \pm 0.6	47.0 \pm 1.0	4	47.1 \pm 0.7	44.9 \pm 1.0	4
Volatile fatty acids (g/L)									
	Propionic	Acetic		Propionic	Acetic		Propionic	Acetic	
20	0.017 \pm 0.030	0	31	0	0	7	0	0	7
10				0	0	7	0.224 \pm 0.033	0	7
5				0.321 \pm 0.060	0	6	0.335 \pm 0.056	0	6
3.3				0.285 \pm 0.020	0	2	0.314 \pm 0.047	0	2
pH ^a									
20	6.72 \pm 0.05		487	6.45 \pm 0.02		159	6.43 \pm 0.04		159
10				6.40 \pm 0.02		64	6.36 \pm 0.03		64
5				6.18 \pm 0.04		81	6.25 \pm 0.02		81
3.3				6.04 \pm 0.03		10	6.15 \pm 0.02		10
Electron balance analysis									
20	93.2 \pm 3.6%		8	84.7 \pm 2.6%		4	88.4 \pm 2.5%		4
10				89.3%		1 ^b	93.8%		1
5				91.0 \pm 5.2%		2	101.1 \pm 2.2%		2
3.3				96.4%		1	97.6%		1
Mass balance									
20	92.8 \pm 3.1%		11	87.2 \pm 3.8%		7	91.0 \pm 3.6%		7
10				95.8%		1	95.6%		1
5				99.1 \pm 2.1%		2	105.7 \pm 1.2%		2
3.3				97.1%		1	97.8%		1

^a The dataset used was subsampled from the original pH dataset, which had 20 data points per hour and in total over 60,000 points. When subsampling, for every 100 points only one point was kept and the rest was eliminated. This led to 3-4 data points per day in the final pH dataset presented.

^β If only sample from one time point were analyzed, then the standard deviation was not shown since it's only from analytical replicates.