

Supplementary Materials for “Fermentation-2205538”

Table S1. Mass and energy balances for a biomass production of 10 and 270 ton_{AFDW}·year⁻¹, obtained from the SuperPro Designer model

Scale (ton _{AFDW} ·year ⁻¹)	Parameter	Strain (S)		
		#1	#2	#3
10	<i>per day</i>			
	Total raw materials (kg)	33.93	278.05	87.79
	Consumed carbon dioxide (kg)	54.41	51.11	54.14
	Water (m ³)	0.70	2.05	0.70
	Electricity consumption – SS1 (kWh)	301.17	131.79	312.86
	Electricity consumption – SS2 (kWh)	20.92	30.75	20.92
	Electricity consumption – SS3 (kWh)	6.35	22.22	4.82
	<i>per kg_{AFDW}</i>			
	Total raw materials (kg)	1.14	9.31	2.94
	Consumed carbon dioxide (kg)	1.82	1.71	1.81
	Water (m ³)	0.02	0.07	0.02
	Electricity consumption – SS1 (kWh)	10.09	4.41	10.48
	Electricity consumption – SS2 (kWh)	0.70	1.03	0.70
	Electricity consumption – SS3 (kWh)	0.21	0.74	0.16
270	<i>per day</i>			
	Total raw materials (kg)	916.24	7 506.97	2 370.41
	Consumed carbon dioxide (kg)	1 469.24	1 379.71	1 461.56
	Water (m ³)	18.81	55.22	18.79
	Electricity consumption – SS1 (kWh)	8 131.58	12 157.89	8 447.37
	Electricity consumption – SS2 (kWh)	564.89	830.33	564.89
	Electricity consumption – SS3 (kWh)	171.43	600.00	130.26
	<i>per kg_{AFDW}</i>			
	Total raw materials (kg)	1.24	10.15	3.20
	Consumed carbon dioxide (kg)	1.99	1.87	1.98
	Water (m ³)	0.03	0.07	0.03
	Electricity consumption – SS1 (kWh)	10.99	16.44	11.42
	Electricity consumption – SS2 (kWh)	0.76	1.12	0.76
	Electricity consumption – SS3 (kWh)	0.23	0.81	0.18