



Figure S1 Total Ion Chromatogram area % for different compound classes in oil from HTL (30 min, 270, 290, 310, 330, 350 °C) of (a) egg white protein, (b) cellulose, (c) alkaline lignin, and (d) glycerol tristearate tentatively identified by GC/MS

Table S1 Feedstocks, biochemical compositions used in the models, and HTL conditions used in published HTL studies

Feedstocks	Temp. (°C)	Time (min)	Composition (%)				Experimental oil yield (%)	Predicted oil yield (%)	Reference
			Protein	Polysaccharide	Lignin	Lipid			
Anaerobic sludge	300	30	15	54	10	1	9.4	10.92	1
Swine manure	350	30	25	14	3	22	30.2	27.92	1
Microalgae	300	10	42	54	1	-	10	22.05	1
Swine manure	340	30	17.1	35.02	0.88	4.86	24.2	16.67	2
Swine manure	260	30	17.1	35.02	0.88	4.86	14.9	11.69	2
Swine manure	340	30	21.89	38.29	4.46	8.81	25.58	23.79	3
Swine manure	340	60	21.89	38.29	4.46	8.81	22.26	22.90	3
microalgae-pine wood-sugar pulp	350	10	6	69	14	-	20	17.67	4
microalgae-pine wood-sugar pulp	350	10	22	45	14	7	29	26.2	4
microalgae-pine wood-sugar pulp	350	10	18	57	9	5	22	24.76	4
Spirulina-Spartina alterniflora	300	30	35	45	6	3	27	23.45	5
Spirulina-Spartina alterniflora	350	30	53	35	3	4	43	32.13	5
Livestock waste	340	15	17	35	1	5	24	16.72	6
algae mix-swine manure	300	60	27	22	6	7	24	17.42	7
algae mix-swine manure	300	60	26	26	5	11	21	20.92	7

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