Supplementary materials

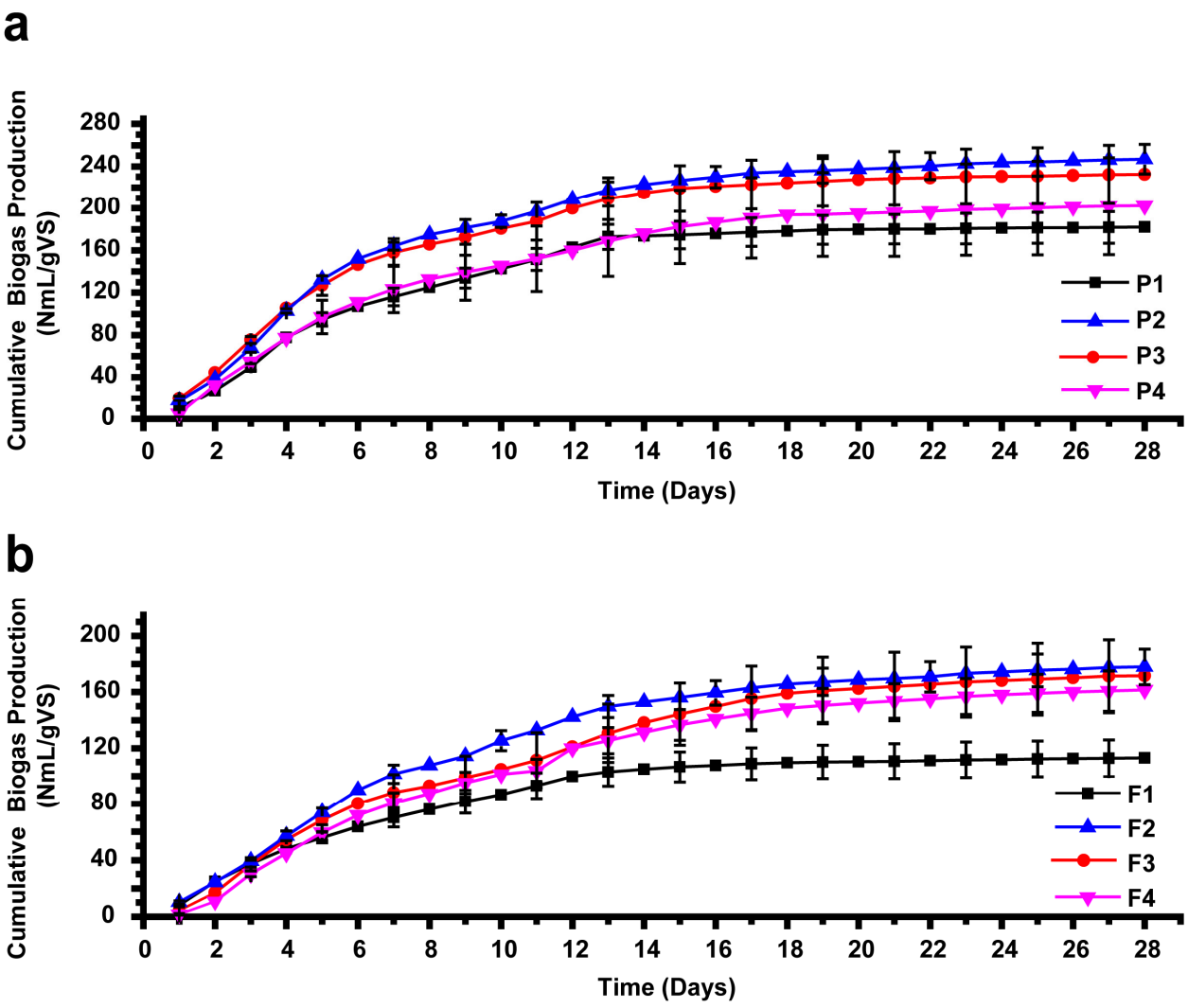

Figure S1. Cumulative biogas production during AD for mono and co-digestion, (a) for AEWLJ/RS arrays and (b) for NAEWLJ/RS arrays.

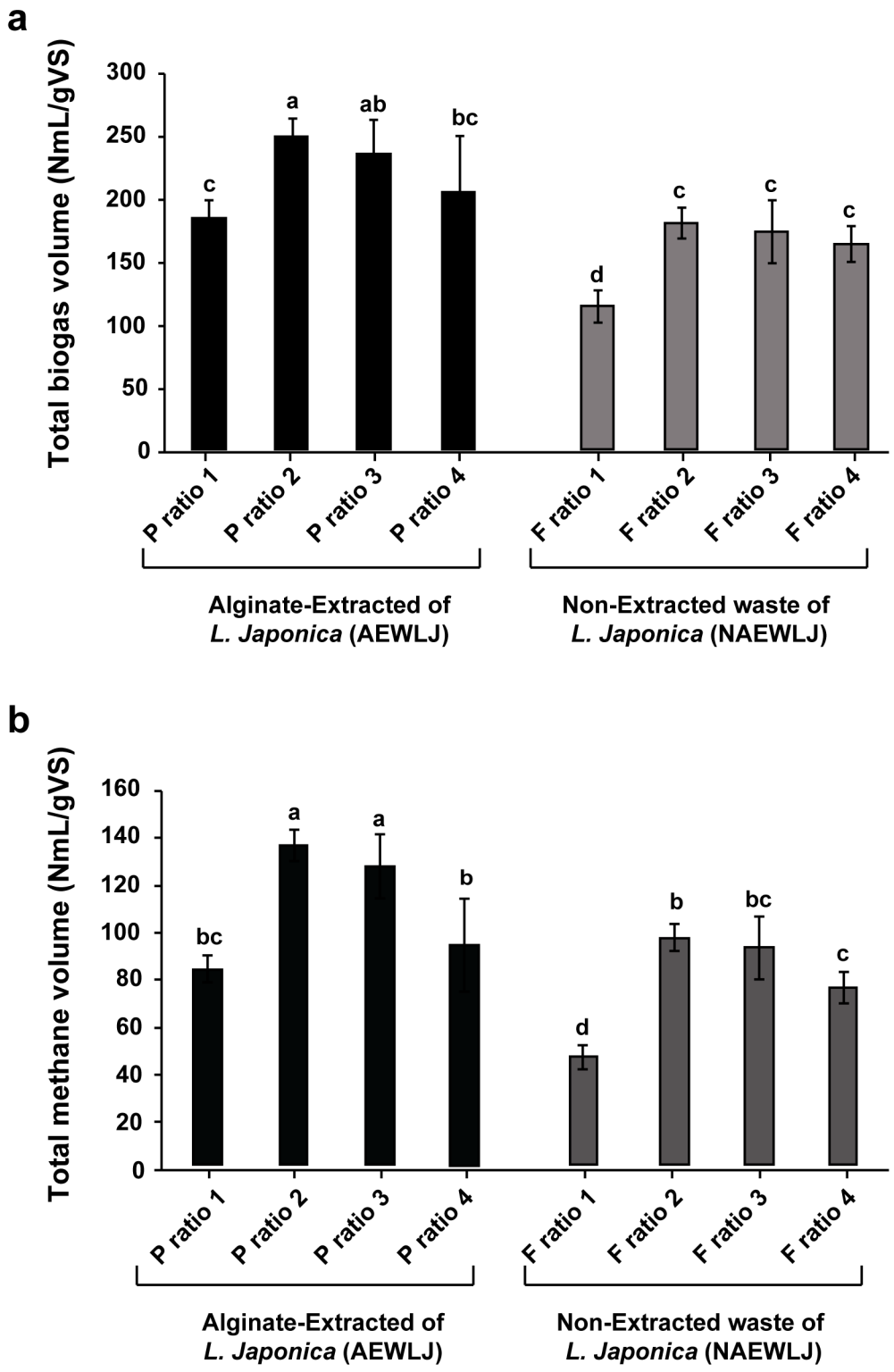

Figure S2. The statistical analysis of biogas and methane production. Columns with different letters differ significantly ($p < 0.05$).

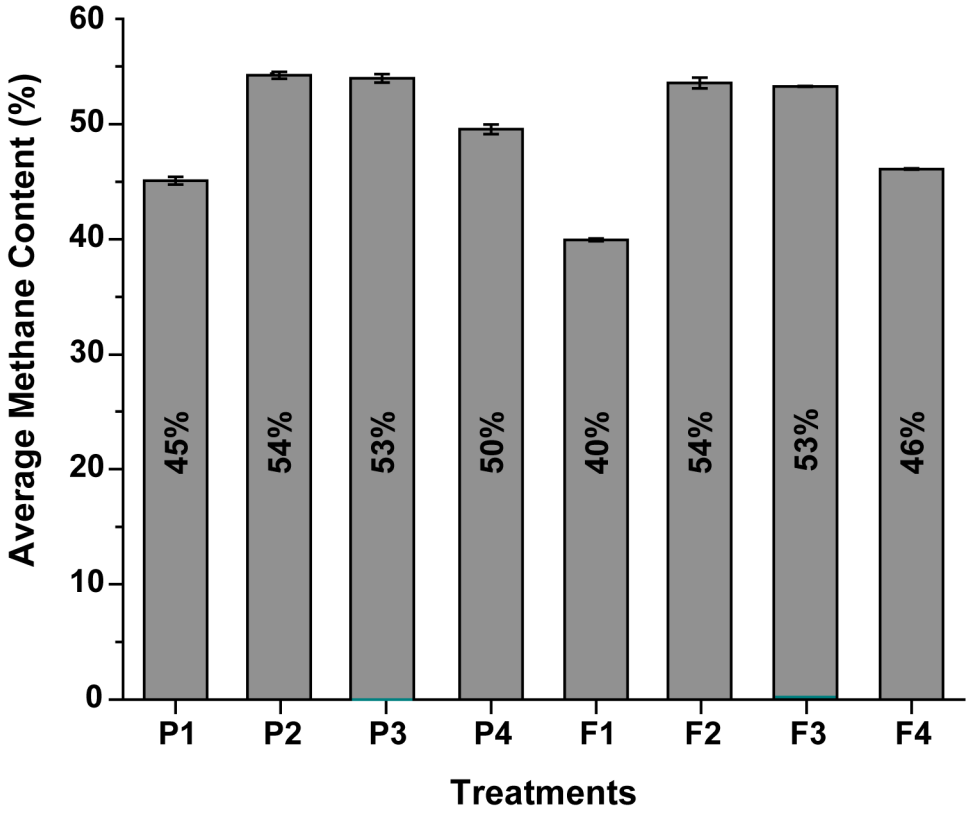

Figure S3. The percentage of cumulative methane in total biogas for mono and co-digestion. of AEWLJ/RS arrays and NAEWLJ/RS arrays.

Table S1. Parameters results using modified Gompertz equation for biomethanation of AEWLJ/RS NAEWLJ/RS arrays.

	AEWLJ/RS mixing arrays				NAEWLJ/RS mixing arrays			
	P1	P2	P3	P4	F1	F2	F3	F4
R_{max} (mL/g VS/d)	8.82	13.88	13.59	8.17	4.48	8.58	6.40	5.56
M(mL/gVS)	83	132.1	125.1	100.9	45.82	95.19	92.96	74.19
λ (days)	0.98	0.13	0.12	0.05	0.96	.031	0.14	0.02
R^2	0.9949	0.9910	0.9951	0.9908	0.9952	0.9970	0.9892	0.9803
RMSE	1.82	3.55	2.42	2.88	0.98	1.56	2.95	3.17
Estimated methane yield(mL/gVS)-28 d	82.90	131.94	124.98	100.34	45.72	94.90	91.60	73.51
Experimental methane yield(N mL/gVS)-28 d	82.05	133.85	125.44	100.22	45.12	95.29	90.97	74.45
Percentage difference between experimental and estimated methane yield (%)	1.04	1.43	0.37	0.12	1.33	0.41	0.70	1.26

R^2: the co-efficient of determination; RMSE: root mean squared error; R_{max}: the maximum methane production rate; M: the methane yield potential: , λ:the lag-phase.