

Supplementary material -Table S1. The following is available as Table S1: Regression coefficients (values of variables are specified in their original units) extraction yields (Y), lutein content and recoveries using spray- (SD) and freeze-dried (FD) biomass, statistics for the fit obtained by multiple linear regression.

Terms of the model	Spray-dried biomass						Freeze-dried biomass					
	Y		Lutein content		Lutein recovery		Y		Lutein content		Lutein recovery	
	Estimated	P-value	Estimated	P-value	Estimated	P-value	Estimated	P-value	Estimated	P-value	Estimated	P-value
constant	0.881		39.010		32.056		7.835		39.017		8.056	
A: T	0.304	0.681	-0.353	0.964	0.827	0.441	0.185	0.881	2.520	0.583	4.578	0.435
B: P	-0.055	0.192	4.135	0.599	-0.294	0.343	-0.049	0.236	14.778	0.018*	-0.612	0.823
C: Ethanol	0.490	0.020*	22.623	0.028*	2.476	0.001*	0.096	0.021*	35.863	4.0E-4*	0.429	0.006*
AA	-0.003	0.396	-0.880	0.939	-0.008	0.461	-0.003	0.470	6.426	0.356	-0.033	0.365
AB	3.67E-5	0.936	0.975	0.929	3.72E-4	0.810	1.57E-4	0.749	-13.520	0.077	-0.002	0.647
AC	1.44E-4	0.962	-3.840	0.728	1.67E-4	0.987	0.002	0.504	3.910	0.548	0.019	0.584
BB	7.73E-5	0.307	2.055	0.857	3.51E-4	0.185	4.48E-5	0.563	8.711	0.227	0.001	0.299
BC	-0.001	0.062	11.965	0.303	-0.002	0.336	-1.22E-4	0.803	5.155	0.435	0.002	0.644
CC	0.001	0.823	-47.010	0.008*	-0.040	0.011*	-0.002	0.559	-32.699	0.004*	-0.028	0.430
Lack-of-fit		0.002		0.329		0.487		0.057		0.066		0.049
<i>Statistics for the goodness of fit of the model</i>												
R ²	0.815		0.858		0.928		0.751		0.960		0.837	
Adjusted R ²	0.481		0.603		0.799		0.304		0.888		0.544	
RSD	1.305		10.424		4.389		1.388		6.076		14.354	
P	0.403		0.783		0.338		0.033		0.232		0.018	

Note: R²–determination coefficient, adjusted R², RSD–residual standard deviation, *P-value* of the lack-of-fit test for the model; * - significant coefficients of the model, T–Temperature, P–Pressure, Ethanol–Co-solvent