High pressure extraction of bioactive diterpenes from the macroalga *Bifurcaria bifurcata*: An efficient and environmentally friendly approach

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Table 1S Analysis of variance (ANOVA) for the response surface quadratic model for EY of *B. bifurcata* HPE extracts as a function of the independent variables

Source	Response surface regression					Analysis of variance			
	Coefficients	Standard errors	T value	R^2	R^2_{adj}	Degree of freedom	Mean square	F value	P value
Model	7.608	0.776	9.80	89.42%	70.39%	9	8.4939	4.70	0.05
X_1	0.364	0.475	0.77			1	1.0585	0.59	0.48
X_2	-2.124	0.475	-4.47			1	36.0909	19.96	0.01
X_3	1.305	0.475	2.74			1	13.6225	7.53	0.04
X_1^2	1.029	0.700	1.47			1	3.9123	2.16	0.20
X_2^2	-0.886	0.700	-1.27			1	2.8982	1.60	0.26
X_3^2	1.482	0.700	2.12			1	8.1051	4.48	0.09
X_1X_2	-0.789	0.672	-1.17			1	2.4889	1.38	0.29
X_1X_3	0.729	0.672	1.08			1	2.1254	1.18	0.33
X_2X_3	1.184	0.672	1.76			1	5.6077	3.10	0.14
Residual						5	1.8083		
Lack of fit						3	2.6662	5.11	0.17
Pure error						2	0.5215	*	*
Total						14			

X_1 – Pressure (MPa); X_2 – Ethanol (%); X_3 – Time (min)

Table 2S Analysis of variance (ANOVA) for the response surface quadratic model for diterpenes content (mg g^{-1} of extract) of *B. bifurcata* HPE extracts as a function of the independent variables

Source	Response surface regression					Analysis of variance			
	Coefficients	Standard errors	T value	R^2	R^2_{adj}	Degree of freedom	Mean square	F value	P value
Model	110.7	32.8	3.38	94.30%	84.05%	9	29659	9.20	0.01
X_1	52.1	20.1	2.59			1	21697	6.73	0.05
X_2	134.1	20.1	6.68			1	143818	44.60	0.00
X_3	-57.5	20.1	-2.86			1	26417	8.19	0.04
X_1^2	-21.8	29.6	-0.74			1	1763	0.55	0.49
X_2^2	66.6	29.6	2.25			1	16385	5.08	0.07
X_3^2	-8.4	29.6	-0.28			1	258	0.08	0.79
X_1X_2	67.5	28.4	2.38			1	18224	5.65	0.06
X_1X_3	-59.1	28.4	-2.08			1	13960	4.33	0.09
X_2X_3	-76.2	28.4	-2.69			1	23250	7.21	0.04
Residual						5	3225		
Lack of fit						3	5043	10.15	0.09
Pure error						2	497	*	*
Total						14			

X_1 – Pressure (MPa); X_2 – Ethanol (%); X_3 – Time (min)

Table 3S Analysis of variance (ANOVA) for the response surface quadratic model for diterpenes content (mg kg^{-1} dw) of *B. bifurcata* HPE extracts as a function of the independent variables

Source	Response surface regression					Analysis of variance			
	Coefficients	Standard errors	T value	R^2	R^2_{adj}	Degree of freedom	Mean square	F value	P value
Model	8336	560	14.90	99.02%	97.26%	9	52763824	56.17	0.00
X_1	2856	343	8.33			1	65257476	69.47	0.00
X_2	5621	343	16.40			1	252792814	269.12	0.00
X_3	-1801	343	-5.26			1	25948835	27.62	0.00
X_1^2	-786	504	-1.56			1	2282302	2.43	0.18
X_2^2	326	504	0.65			1	392547	0.42	0.55
X_3^2	291	504	0.58			1	311634	0.33	0.59
$X_1 X_2$	1629	485	3.36			1	10611286	11.30	0.02
$X_1 X_3$	-5408	485	-11.16			1	116982283	124.54	0.00
$X_2 X_3$	-143	485	-0.30			1	82179	0.09	0.78
Residual						5	939336		
Lack of fit						3	463013	0.28	0.84
Pure error						2	1653821	*	*
Total						14			

X_1 – Pressure (MPa); X_2 – Ethanol (%); X_3 – Time (min)