

Table 2.- Results obtained in the optimization of volatiles extraction in muskmelon samples using RSM. Significant model factors, parameters of model goodness of fit and confirmation results in the optimum extraction conditions predicted are indicated.

	Model Adjust					Confirmation trial			
	Significant factors and interactions of each RSM model ^a	R ²	Model R ² adjusted ^b	“Lack of fit” significance ^c	Adequate precision ^d	Predicted mean	99% PI low	Observed mean	99% PI high
(E,Z)-2,6-nonadienal	C, C ²	0,83	0,62	0,51	5,81	55099	32546	363834	1,78E+12
(Z)-3-hexen-1-ol	B, AB, B ² , C ²	0,96	0,96	0,29	0,61	51998	24457	34512	107857
(Z)-3-hexen-1-ol acetate	A, B, C	0,86	0,82	0,41	0,72	12329	7554	5611	17104
(Z)-6-nonenal	A, C, C ²	0,90	0,78	0,25	8,77	24909	12069	80796	1,14E+06
(E)-2-nonenal	C, C ²	0,87	0,71	0,44	6,64	10068	6184	53218	61901
(E,Z)-2,6-nonadien-1-ol	A, B, C ²	0,91	0,79	0,63	9,11	29926	8416	91323	745203
(Z)-3-nonen-1-ol	A, B, AB, B ² , C ²	0,97	0,93	0,41	17,78	397585	228228	401428	683299
(Z)-6-nonen-1-ol	B, B ² , C ²	0,90	0,78	0,39	9,24	356696	89924	296002	1,31E+06
1-hexanol	B	0,47	0,35	0,17	6,87	25584	9912	18747	117278
1-nonanol	B, C, B ² , C ²	0,90	0,77	0,24	10,21	90253	31301	104524	703071
Benzaldehyde	B, AB, A ² , B ²	0,91	0,80	0,53	10,59	9453	7076	73814 ^e	11829
Nonanal	C	0,58	0,49	0,30	8,05	25214	13240	52143	124037

^a Model factors: A = sample weight (g), B = extraction time (min) and C = gas flow (% max of the scale, 1.6L/min).

^b Regression coefficient of determination corrected to have a meaningful comparison of models with very different numbers of explicative factors.

^c Comparisons of the “Lack of fit” of the residuals relative to the model pure error indicates the probability of a curvature not considered in the model could occur. When this parameter is not significant (P>0.05) the lack of fit could occur due to noise and the model is good.

^d The adequate precision measures the signal to noise ratio. A ratio greater than 4 is desirable.

^e Anomalous value