

Table 8 The 3-level-4-factor response surface analysis for concentration of cinnamaldehyde in the headspace.

Treatment No.	Temp ($^{\circ}\text{C}$) x ₁	Time (min) x ₂	Volume of oil (μl) x ₃	Volume of desiccators (ml) x ₄	Cinamaldehyde (ppm) observed (Y ₁)
1	+1(80)	+1(50)	0(300)	0(2,200)	1,039.83
2	+1(80)	-1(10)	0(300)	0(2,200)	579.17
3	-1(40)	+1(50)	0(300)	0(2,200)	783.58
4	-1(40)	-1(10)	0(300)	0(2,200)	448.08
5	0(60)	0(30)	+1(700)	+1(3,800)	516.25
6	0(60)	0(30)	+1(700)	-1(800)	3,108.70
7	0(60)	0(30)	-1(50)	+1(3,800)	0.00
8	0(60)	0(30)	-1(50)	-1(800)	1,645.54
9	0(60)	0(30)	0(300)	0(2,200)	758.35
10	+1(80)	0(30)	0(300)	+1(3,800)	404.27
11	+1(80)	0(30)	0(300)	-1(800)	2,741.54
12	-1(40)	0(30)	0(300)	+1(3,800)	165.87
13	-1(40)	0(30)	0(300)	-1(800)	2,492.87
14	0(60)	+1(50)	+1(700)	0(2,200)	1,159.02

Table 8 (Continued)

Treatment No.	Temp (⁰ C) x ₁	Time (min) x ₂	Volume of oil (μl) x ₃	Volume of desiccators (ml) x ₄	Cinamaldehyde (ppm) observed (Y ₁)
15	0(60)	+1(50)	-1(50)	0(2,200)	112.16
16	0(60)	-1(10)	+1(700)	0(2,200)	940.27
19	+1(80)	0(30)	+1(700)	0(2,200)	1,230.19
20	+1(80)	0(30)	-1(50)	0(2,200)	213.72
21	-1(40)	0(30)	+1(700)	0(2,200)	991.80
22	-1(40)	0(30)	-1(50)	0(2,200)	0.00
23	0(60)	+1(50)	0(300)	+1(3,800)	422.57
24	0(60)	+1(50)	0(300)	-1(800)	2,753.09
25	0(60)	-1(10)	0(300)	0(2,200)	544.20
26	0(60)	-1(10)	0(300)	-1(800)	2,448.01
27	0(60)	0(30)	0(300)	0(2,200)	758.35