

Table 4 Influence of the sample (obtained by SFE-CO₂) concentration and injection volume on the chromatographic performance of the current method

Dilution/Injection Volume	Compound	t _R (min)	Área × 10 ⁴ (µV×s)	k prime (-)	Selectivity (-)	Resolution (-)	Symmetry Factor (-)	Width @ Baseline × 10 ² (-)
1×/10 µL	Rosmanol	2.98±0.01	15.4±0.1	6.85±0.01	1.08	2.02±0.03	1.17±0.01	8.5±0.6
	Carnosol	3.79±0.01	14.0±0.4	8.97±0.01	1.31	21.5±0.1	0.99±0.01	7.9±0.4
	Carnosic acid	4.27±0.01	8.9±0.1	10.24±0.01	1.14	10.5±0.1	1.13±0.02	9.1±0.4
	Methyl carnosate	4.64±0.01	7.4±0.2	11.21±0.01	1.04	3.6±0.1	0.99±0.01	7.5±0.4
1×/20 µL	Rosmanol	2.98±0.01	31.3±0.1	6.85±0.02	1.08	1.92±0.01	0.95±0.01	9.4±0.4
	Carnosol	3.79±0.01	30.4±0.3	8.97±0.02	1.31	18.3±0.2	0.94±0.01	9.0±0.6
	Carnosic acid	4.27±0.01	18.4±0.1	10.25±0.02	1.14	10.1±0.1	1.14±0.01	9.7±0.5
	Methyl carnosate	4.65±0.01	15.1±0.2	11.24±0.01	1.04	3.5±0.1	0.99±0.02	7.5±0.6
1×/30 µL	Rosmanol	2.98±0.01	46.1±0.4	6.84±0.01	1.08	1.84±0.01	0.74±0.01	11.6±0.9
	Carnosol	3.78±0.01	42.0±0.1	8.96±0.02	1.31	16.5±0.3	0.75±0.01	9.2±0.3
	Carnosic acid	4.27±0.01	27.8±0.3	10.22±0.02	1.14	8.8±0.1	1.09±0.01	10.2±0.9
	Methyl carnosate	4.63±0.01	22.7±0.4	11.19±0.03	1.04	3.1±0.1	0.97±0.02	8.2±0.4
1×/40 µL	Rosmanol	2.98±0.01	60.9±0.8	6.84±0.02	1.08	1.66±0.02	0.65±0.01	15.9±0.9
	Carnosol	3.79±0.01	55.7±0.5	8.97±0.02	1.31	17.4±0.1	0.69±0.01	12.4±0.3
	Carnosic acid	4.27±0.01	36.1±0.1	10.23±0.02	1.14	8.3±0.1	0.87±0.01	12.2±0.3
	Methyl carnosate	4.63±0.01	29.3±0.3	11.19±0.03	1.04	2.9±0.1	0.82±0.04	9.2±0.7
1×/50 µL	Rosmanol	2.98±0.01	75.0±0.1	6.85±0.01	1.08	1.86±0.06	0.60±0.01	20.6±0.3
	Carnosol	3.79±0.01	51.3±0.5	8.97±0.01	1.31	17.9±0.1	0.78±0.01	10.0±0.3
	Carnosic acid	4.27±0.01	45.7±0.5	10.23±0.02	1.14	8.8±0.1	0.74±0.01	15.1±0.4
	Methyl carnosate	4.64±0.01	38.1±0.6	11.21±0.01	1.04	3.1±0.1	0.72±0.03	11.8±0.8
2×/10 µL	Rosmanol	2.99±0.01	7.8±0.1	6.88±0.03	1.08	1.98±0.03	1.15±0.02	8.3±0.4
	Carnosol	3.81±0.01	6.8±0.2	9.01±0.03	1.31	21.1±0.1	1.01±0.01	7.5±0.3
	Carnosic acid	4.30±0.02	4.4±0.1	10.30±0.04	1.14	10.5±0.1	1.11±0.01	8.4±0.3
	Methyl carnosate	4.66±0.01	3.8±0.1	11.26±0.02	1.04	3.6±0.1	1.00±0.03	7.2±0.5
2×/20 µL	Rosmanol	2.99±0.01	15.8±0.1	6.88±0.03	1.08	1.91±0.02	0.95±0.01	8.7±0.6
	Carnosol	3.80±0.01	14.6±0.2	9.01±0.03	1.31	18.2±0.1	0.95±0.01	8.2±0.2
	Carnosic acid	4.30±0.01	9.1±0.1	10.30±0.04	1.14	10.1±0.1	1.10±0.01	8.9±0.3
	Methyl carnosate	4.65±0.01	7.7±0.3	11.23±0.01	1.04	3.5±0.1	0.99±0.02	7.7±0.1
2×/30 µL	Rosmanol	3.00±0.01	23.4±0.4	6.89±0.02	1.08	1.83±0.01	0.73±0.01	11.3±1.0
	Carnosol	3.81±0.01	20.2±0.3	9.02±0.01	1.31	16.4±0.1	0.76±0.01	9.4±0.1
	Carnosic acid	4.30±0.01	13.9±0.2	10.30±0.01	1.14	8.9±0.1	1.05±0.01	10.0±0.8
	Methyl carnosate	4.66±0.01	11.5±0.2	11.27±0.02	1.04	3.1±0.1	0.96±0.02	7.7±0.2

Table 4 Continued

Dilution/Injection Volume	Compound	t_R (min)	$\text{Área} \times 10^4$ ($\mu\text{V} \times \text{s}$)	k prime (-)	Selectivity (-)	Resolution (-)	Symmetry Factor (-)	Width @ Baseline $\times 10^2$ (-)
2×/40 μL	Rosmanol	3.00±0.01	31.1±0.4	6.89±0.02	1.08	1.64±0.02	0.64±0.01	16.0±0.6
	Carnosol	3.81±0.01	27.2±0.5	9.03±0.03	1.31	17.3±0.1	0.70±0.03	12.4±0.3
	Carnosic acid	4.30±0.01	17.8±0.1	10.31±0.03	1.14	8.4±0.1	0.84±0.01	11.3±0.3
	Methyl carnosate	4.65±0.01	15.2±0.2	11.24±0.04	1.04	2.8±0.1	0.82±0.04	10.2±0.2
2×/50 μL	Rosmanol	3.00±0.01	37.8±0.2	6.89±0.03	1.08	1.82±0.06	0.60±0.01	19.4±0.6
	Carnosol	3.81±0.01	25.1±0.3	9.02±0.04	1.31	17.8±0.1	0.79±0.01	9.7±0.1
	Carnosic acid	4.30±0.02	22.9±0.2	10.30±0.04	1.14	9.0±0.1	0.73±0.01	15.0±0.1
	Methyl carnosate	4.66±0.01	19.6±0.4	11.25±0.04	1.04	3.1±0.1	0.71±0.05	12.0±0.9
3×/10 μL	Rosmanol	3.00±0.01	5.3±0.1	6.90±0.01	1.08	1.97±0.02	1.16±0.01	7.7±0.7
	Carnosol	3.81±0.01	4.4±0.2	9.04±0.01	1.31	21.0±0.1	1.00±0.01	7.9±0.4
	Carnosic acid	4.31±0.02	2.9±0.1	10.33±0.01	1.14	10.4±0.1	1.06±0.01	8.8±0.8
	Methyl carnosate	4.67±0.01	2.6±0.2	11.30±0.01	1.04	3.6±0.1	1.00±0.03	7.5±0.7
3×/20 μL	Rosmanol	2.99±0.01	12.3±0.1	6.87±0.01	1.08	1.95±0.01	1.03±0.01	8.8±0.2
	Carnosol	3.81±0.01	9.4±0.2	9.02±0.01	1.31	18.2±0.1	0.96±0.01	8.1±0.6
	Carnosic acid	4.30±0.01	6.1±0.1	10.33±0.01	1.14	10.1±0.1	1.07±0.01	9.2±0.1
	Methyl carnosate	4.67±0.01	5.3±0.2	11.29±0.02	1.04	3.5±0.1	0.99±0.02	7.5±0.3
3×/30 μL	Rosmanol	3.00±0.01	16.0±0.1	6.90±0.03	1.08	1.82±0.01	0.74±0.01	12.2±0.3
	Carnosol	3.81±0.01	12.5±0.6	9.04±0.03	1.31	16.5±0.1	0.75±0.01	9.1±0.6
	Carnosic acid	4.30±0.01	9.1±0.1	10.33±0.03	1.14	8.9±0.1	1.03±0.01	9.8±0.9
	Methyl carnosate	4.68±0.02	7.7±0.1	11.30±0.04	1.04	3.1±0.1	0.95±0.02	7.2±0.6
3×/40 μL	Rosmanol	2.99±0.01	21.3±0.4	6.88±0.01	1.08	1.61±0.01	0.64±0.01	16.8±0.9
	Carnosol	3.81±0.01	17.8±0.1	9.02±0.02	1.31	17.1±0.1	0.70±0.01	12.7±0.2
	Carnosic acid	4.30±0.01	11.8±0.1	10.30±0.02	1.14	8.3±0.1	0.83±0.01	12.1±0.3
	Methyl carnosate	4.67±0.01	10.4±0.1	11.28±0.03	1.04	2.8±0.1	0.82±0.01	9.7±0.6
3×/50 μL	Rosmanol	3.00±0.01	25.7±0.2	6.90±0.01	1.08	1.74±0.04	0.60±0.01	19.3±0.5
	Carnosol	3.81±0.01	16.4±0.3	9.04±0.01	1.31	17.7±0.1	0.79±0.01	9.7±0.5
	Carnosic acid	4.30±0.02	14.8±0.1	10.33±0.01	1.14	8.9±0.1	0.72±0.01	14.4±0.1
	Methyl carnosate	4.67±0.01	13.2±0.2	11.29±0.02	1.04	3.1±0.1	0.71±0.01	11.2±0.7
4×/10 μL	Rosmanol	2.99±0.01	4.0±0.1	6.88±0.01	1.08	1.98±0.01	1.16±0.01	7.1±0.6
	Carnosol	3.81±0.01	3.2±0.1	9.02±0.02	1.31	21.0±0.1	1.01±0.02	7.4±0.3
	Carnosic acid	4.31±0.02	2.1±0.1	10.31±0.01	1.14	10.3±0.1	1.08±0.01	8.5±0.2
	Methyl carnosate	4.67±0.01	1.9±0.1	11.28±0.01	1.04	3.6±0.1	1.02±0.02	7.8±0.5
4×/20 μL	Rosmanol	2.99±0.01	8.1±0.1	6.88±0.01	1.08	1.91±0.01	0.96±0.01	9.3±0.3
	Carnosol	3.81±0.01	7.0±0.1	9.02±0.02	1.31	18.2±0.1	0.96±0.01	8.3±0.6
	Carnosic acid	4.30±0.01	4.3±0.1	10.31±0.02	1.14	10.1±0.1	1.09±0.01	9.1±0.6
	Methyl carnosate	4.66±0.01	3.9±0.1	11.26±0.02	1.04	3.5±0.1	1.00±0.01	7.7±0.2

Table 4 Continued

Dilution/Injection Volume	Compound	t _R (min)	Área × 10 ⁴ (µV×s)	k prime (-)	Selectivity (-)	Resolution (-)	Symmetry Factor (-)	Width @ Baseline × 10 ² (-)
4×/30 µL	Rosmanol	2.99±0.01	12.0±0.1	6.88±0.01	1.08	1.81±0.02	0.74±0.01	11.6±0.3
	Carnosol	3.80±0.01	9.7±0.1	9.01±0.01	1.31	16.5±0.1	0.77±0.01	9.2±0.3
	Carnosic acid	4.29±0.01	6.5±0.1	10.30±0.01	1.14	9.0±0.1	1.03±0.01	10.2±0.9
	Methyl carnosate	4.66±0.01	5.9±0.1	11.26±0.03	1.04	3.1±0.1	0.96±0.01	8.7±0.3
4×/40 µL	Rosmanol	3.00±0.01	13.5±0.9	6.89±0.02	1.08	1.96±0.09	0.78±0.04	14.0±0.9
	Carnosol	3.81±0.01	11.3±0.9	9.02±0.02	1.31	17.9±0.8	0.79±0.06	11.2±0.9
	Carnosic acid	4.30±0.01	7.1±0.8	10.31±0.03	1.14	9.0±0.7	0.92±0.05	10.4±0.7
	Methyl carnosate	4.65±0.02	7.7±0.1	11.25±0.02	1.04	2.9±0.2	0.83±0.03	8.7±0.1
4×/50 µL	Rosmanol	3.00±0.01	19.5±0.2	6.88±0.01	1.08	1.69±0.01	0.60±0.01	19.8±0.1
	Carnosol	3.81±0.01	12.2±0.1	9.01±0.02	1.31	17.6±0.1	0.80±0.01	9.7±0.2
	Carnosic acid	4.30±0.02	10.6±0.1	10.30±0.01	1.14	8.9±0.1	0.72±0.01	15.0±0.9
	Methyl carnosate	4.66±0.01	10.0±0.2	11.27±0.03	1.04	3.1±0.2	0.72±0.01	11.5±0.7
5×/all volumes	NI	-	-	-	-	-	-	-

± represents the standard deviation; t_R = retention time; (-), dimensionless; NI: peaks not identified.