



SUPPLEMENTARY MATERIAL TO  
**Stabilization of rose hip oil with pomegranate peel extract  
during accelerated storage**

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TABLE S-I. Peroxide value ( $I_p$ ),  $p$ -anisidine value ( $A$ ) and inhibition of TBARS of different rose hip seed oil samples during a storage period of 12 days at 65°C. The results in the table are presented as mean  $\pm$   $SD$  ( $n = 3$ ); the same letters in the same row are not significantly different according to the Tukey’s test,  $p < 0.05$

Parameter	Day	Oil without antioxidant	Oil with BHT (0.02%)	Oil with pomegranate peel extract (0.1%)	Oil with pomegranate peel extract (0.05%) and BHT (0.01%)
$I_p$ / meqO <sub>2</sub> kg <sup>-1</sup>	3	9.80 $\pm$ 1.39 <sup>a</sup>	10.65 $\pm$ 1.51 <sup>a</sup>	9.69 $\pm$ 1.37 <sup>a</sup>	7.18 $\pm$ 1.02 <sup>a</sup>
	6	11.13 $\pm$ 0.92 <sup>ab</sup>	10.11 $\pm$ 0.83 <sup>b</sup>	11.89 $\pm$ 0.98 <sup>ab</sup>	13.12 $\pm$ 1.08 <sup>a</sup>
	9	29.20 $\pm$ 2.83 <sup>a</sup>	23.20 $\pm$ 2.25 <sup>ab</sup>	21.85 $\pm$ 2.11 <sup>b</sup>	26.22 $\pm$ 2.54 <sup>ab</sup>
	12	74.67 $\pm$ 4.72 <sup>a</sup>	43.73 $\pm$ 2.76 <sup>c</sup>	72.13 $\pm$ 4.56 <sup>a</sup>	57.14 $\pm$ 3.61 <sup>b</sup>
$A$	3	10.96 $\pm$ 1.73 <sup>ab</sup>	11.37 $\pm$ 1.79 <sup>ab</sup>	9.34 $\pm$ 1.47 <sup>b</sup>	15.03 $\pm$ 2.37 <sup>a</sup>
	6	12.21 $\pm$ 0.64 <sup>c</sup>	16.80 $\pm$ 0.88 <sup>b</sup>	20.75 $\pm$ 1.08 <sup>a</sup>	18.95 $\pm$ 0.99 <sup>ab</sup>
	9	47.92 $\pm$ 3.36 <sup>a</sup>	40.84 $\pm$ 2.86 <sup>a</sup>	32.91 $\pm$ 2.31 <sup>b</sup>	43.20 $\pm$ 3.03 <sup>a</sup>
	12	62.40 $\pm$ 3.24 <sup>ab</sup>	62.43 $\pm$ 3.25 <sup>ab</sup>	55.89 $\pm$ 2.91 <sup>b</sup>	70.18 $\pm$ 3.65 <sup>a</sup>
TBARS inhibition, %	3	53.05 $\pm$ 6.28 <sup>a</sup>	50.20 $\pm$ 5.94 <sup>a</sup>	49.53 $\pm$ 5.86 <sup>a</sup>	50.42 $\pm$ 5.96 <sup>a</sup>
	6	38.36 $\pm$ 6.43 <sup>a</sup>	27.89 $\pm$ 4.68 <sup>a</sup>	28.50 $\pm$ 4.78 <sup>a</sup>	28.20 $\pm$ 4.73 <sup>a</sup>
	9	15.68 $\pm$ 2.86 <sup>a</sup>	16.71 $\pm$ 3.05 <sup>a</sup>	20.13 $\pm$ 3.67 <sup>a</sup>	17.59 $\pm$ 3.21 <sup>a</sup>
	12	0.00 $\pm$ 0.00 <sup>c</sup>	10.51 $\pm$ 0.96 <sup>b</sup>	15.61 $\pm$ 1.43 <sup>a</sup>	15.76 $\pm$ 1.45 <sup>a</sup>

Means followed by different letters are significantly different according to the *post hoc* Tukey’s test ( $P < 0.05$ )

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TABLE S-II. Total phenolic content (*TPC*) and antioxidative activity (*DPPH RSA*) of different rose hip seed oil samples during a storage period of 12 days at 65°C. The results in the table are presented as mean  $\pm$  *SD* ( $n = 3$ ); the same letters in the same row are not significantly different according to the Tukey's test,  $p < 0.05$

Parameter	Oil without antioxidant	Oil with BHT (0.02 %)	Oil with pomegranate peel extract (0.1 %)	Oil with pomegranate peel extract (0.05 %) and BHT (0.01 %)
<i>DPPH RSA</i> , %	15.11 $\pm$ 1.71 <sup>b</sup>	13.52 $\pm$ 1.53 <sup>b</sup>	29.42 $\pm$ 3.33 <sup>a</sup>	14.80 $\pm$ 1.67 <sup>b</sup>
<i>TPC</i> , mg GAE g <sup>-1</sup>	0.07 $\pm$ 0.00 <sup>c</sup>	0.07 $\pm$ 0.00 <sup>c</sup>	0.22 $\pm$ 0.01 <sup>a</sup>	0.11 $\pm$ 0.01 <sup>b</sup>

Means followed by different letters are significantly different according to the *post hoc* Tukey's test ( $p < 0.05$ )