

We have continued a study of the seed oils of plants of the family Umbelliferae [1, 2] that have not previously been investigated — *Heracleum sibiricum* and *Angelica ternata*. The physicochemical indices of these oils and of the fatty acids isolated from them are given in Table 1.

TABLE 1. Physicochemical Indices

Index	Unit of measurement	H. sibiricum		A. ternata	
		oil	fatty acids	oil	fatty acids
Oil content of the seeds	%	8.15	—	5.9	—
Density of the oil	g/cm <sup>3</sup>	0.9471	—	0.9296	—
Refractive index	—	1.4750	—	1.4500	—
Acid No.	mg KOH/g	7.1	—	4.3	—
Unsaponifiables	%	6.9	—	6.1	—
Hehner No.	%	94.7	—	96.0	—
Thiocyanogen No.	% I <sub>2</sub>	69.3	73.1	76.9	82.8
Iodine No.	% I <sub>2</sub>	98.8	105.1	100.0	108.8
Saponification No.	mg KOH/g	183.9	—	196.9	—
Neutralization No.	—	—	203.7	—	210.3
Mean mol. wt. of the mixture	—	—	275.4	—	266.7
Neutralization No. of saturated acids	mg KOH/g	—	209.4	—	215.8
Mean mol. wt. of the saturated acids	—	—	267.9	—	260.0
Proportion of solid acids	%	—	27.8	—	47.5
Iodine No. of the solid acids	% I <sub>2</sub>	—	61.2	—	67.1

TABLE 2. Fatty-Acid Compositions of the Oils

Plant	C <sub>10:0</sub>	C <sub>16:0</sub>	C <sub>16:1</sub>	C <sub>18:1</sub> <sup>A6</sup>	C <sub>18:1</sub> <sup>A7</sup>	C <sub>18:1</sub> <sup>A8</sup>	C <sub>18:1</sub> <sup>A9</sup>	C <sub>18:2</sub>
H. sibiricum	8.1	4.6	0.7	37.9	1.1	1.9	20.3	25.4
A. ternata	—	4.4	—	48.0	1.9	2.7	12.3	30.7

TABLE 3. Triglyceride Compositions

Plant	G1SSS	G1SSU	GIUUS	GISUU	GIUSU	GIUUU
H. sibiricum	0.20	1.17	1.16	7.84	11.40	78.26
A. ternata	0.85	1.35	1.05	10.0	6.0	80.75

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Gas-liquid chromatograms of the initial and oxidized mixtures enabled the fatty-acid compositions of the oils investigated to be determined (Table 2).

It can be seen from Table 2 that the oils studied lacked stearic and linolenic acids. Pétroselinic acid is present in the oils of both plants in an amount considerably exceeding the amount of oleic acid.

The triglyceride compositions of the oils were determined by their enzymatic hydrolysis, and it was established that triunsaturated glycerides predominate in them (Table 3).

With respect to their fatty-acid and triglyceride compositions, the oils investigated are similar to coriander oil.

#### LITERATURE CITED

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