

NEUTRON ACTIVATION ANALYSIS OF SUNFLOWER SEEDS

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Samples of the shell (A), the nucleus (B) and the ashed nucleus (C) of sunflower seeds grown on the territory of Vojvodina were separately analysed. The samples were irradiated for five days in a neutron flux of $\phi = 0.94(9) \times 10^{13}$ n/s·cm² (as determined from the activity of the simultaneously irradiated Au standard). Ten days after the irradiation period, by means of a Ge(Li) spectrometer, the activities of the following isotopes were detected: ⁴⁷Ca, ⁶⁵Zn, ⁵⁹Fe, ⁸²Br, ⁶⁰Co, ¹⁹⁸Au. The concentrations obtained from the measured gamma intensities are shown in table 1. and compared with the data for nutritional oil pro-

TABLE 1.

	Concentration (ppm)			
	Sample (A)	Sample (B)	Sample (C)	Nutr. Oil (ref. 1)
Ca	5800(900)	1400(300)	1300(200)	-
Zn	130(20)	70(10)	70(10)	0.04(1)
Fe	21(6)	31(6)	37(6)	0.05(1)
Br	7(1)	1.6(2)	0.7(1)	0.08(1)
Co	0.05(1)	0.10(2)	0.14(3)	-
Au	0.0024(5)	<0.001	0.006(1)	-

duced from the same sort of seeds. According to our results the concentration of the detected elements is much lower in the nutritional oil.

REFERENCES

1. L. Marinkov, D. Cvjetičanin, A. Kukoč, B. Matijašević and D. Lazar, *Fizika* 7, *Suppl.* (1975) 108.