ETERMINATION OF MINERAL ELEMENTS IN THE ABOVE GROUND PART OF NONEA PULLA L.

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https://doi.org/10.5281/zenodo.17333469

Relevance: Nonea pulla L. is one of the promising medicinal plants, containing tannins, coumarins, organic acids, anthocyanins, vitamin A, ascorbic acid, amino acids, polysaccharides, flavonoids, alkaloids, and microelements, but this plant has not been sufficiently studied. In order for this medicinal plant to be used in scientific medicine, its purity must meet the requirements. It should be noted that heavy metals such as cadmium, lead, and mercury are toxic to living organisms and cause various diseases in the human body. In this regard, the problem of the ecological purity of medicinal plants becomes particularly relevant.

The purpose of the study. Determination of mineral elements in the aboveground part of Nonea pulla L.

Methods and styles. The above-ground part of Nonea pulla L. was collected in Tashkent in 2025 during flowering. ICP-MS mass spectrometry was used to determine the mass of substances using the inductively coupled plasma method, a method of studying substances based on determining the mass of charge per mass of ions formed when components are ionized.

Results. As a result of the research, Nonea pulla L. can be ranked in descending order of the amount of mineral elements in the aboveground part: (Table 1): K> Ca> P> Na> Mg> Fe> Al> Zn> Ba> Sr> B> Mn> Cu> Pb> Ti> Rb> Cr> Ni> Ga> Li> V >Mo > Ce > Sc> Co> La> Zr> Se> U> Bi> Te> Y> As> Sb> Nd> Pr> W> Sn> Th> Ag> Sm> Cs> Gd> Dy> Cd> Eu> Pt> Au> Er> Nb> Yb> Ho> Hf> Be> Lu> Tb=Tm= Ta=Re= TI >In.

Table 1

The content of mineral elements in the above-ground part of Nonea pulla L.

№	Element	Amount, mg/kg	№	Element	Amount, mg/kg	№	Element	Amount, mg/kg
1.	K	36515	22.	V	1,89	43.	Se	0,443
2.	Ca	10875	23.	Sc	0,501	44.	Te	0,30
3.	Mg	1439	24.	Co	0,463	45.	Hf	0,016
4.	P	1879	25.	Ga	2,34	46.	Be	0,014
5.	Al	769	26.	Nb	0,041	47.	Pt	0,05
6.	Fe	875	27.	Cs	0,096	48.	Au	0,05
7.	Na	1474	28.	Sn	0,151	49.	La	0,462
8.	Sr	78	29.	Sb	0,229	50.	Zr	0,457
9.	B	70,8	30.	Pr	0,166	51.	Y	0,294
10.	Ti	17,9	31.	U	0,370	52.	As	0,231
11.	Mn	45,8	32.	Sm	0,111	53.	Nd	0,207
12.	Ba	129	33.	Gd	0,093	54.	W	0,16
13.	Zn	136	34.	Ag	0,127	55.	Th	0,148
14.	Cu	24,4	35.	Dy	0,083	56.	Tb	0,01
15.	Mo	1,58	36.	Cd	0,080	57.	Tm	0,01

16.	Rb	11,7	37.	Eu	0,072	58.	Ta	0,01
17.	Li	2,13	38.	Bi	0,341	59.	Re	0,01
18.	Cr	7,4	39.	Er	0,048	60.	TI	0,01
19.	Ni	2,40	40.	Yb	0,040	61.	In	0,005
20.	Pb	1,4	41.	Ho	0,019			
21.	Ce	1,15	42.	Lu	0,01			

Summary. For the first time, the amount of mineral elements in the aboveground part of Nonea pulla L. was determined using the ICP-MS (inductively coupled plasma mass spectrometry) method.

The concentration level of toxic elements was within the established values, which allowed the recommended medicinal plant to be included in the list of environmentally friendly products.