Table 1

Amphibol composition from Sarkhoi complex granite and melanocratic enclaves.

	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO	MnO	MgO	CaO	Na_2O	K_2O	Total	#Mg
Granite	47.36	0.90	7.06	0.00	17.52	0.68	11.49	11.88	0.76	0.64	98.28	0.54
	48.50	0.87	6.53	0.00	16.12	0.67	12.32	11.80	0.85	0.59	98.25	0.58
	46.60	1.12	7.41	0.03	16.34	0.66	12.16	11.70	1.02	0.68	97.71	0.57
	47.58	1.05	7.00	0.03	16.26	0.70	12.03	11.65	1.01	0.65	97.95	0.57
	47.76	1.17	6.68	0.01	15.99	0.70	12.63	11.67	0.76	0.64	98.28	0.58
	48.69	1.06	5.90	0.01	15.37	0.73	12.86	11.56	0.85	0.59	98.25	0.60
Enclaves (groundmass)	47.57	1.03	7.15	0.02	16.34	0.73	12.22	11.67	1.05	0.67	98.45	0.57
	47.84	1.21	6.77	0.01	15.77	0.70	12.52	11.69	0.96	0.61	98.08	0.59
	47.79	1.06	6.94	0.02	16.13	0.69	12.23	11.67	0.98	0.66	98.17	0.57
	47.78	1.25	6.78	0.03	16.00	0.71	12.51	11.70	0.99	0.64	98.40	0.58
	47.85	1.04	6.71	0.01	16.46	0.68	12.01	11.66	0.88	0.63	97.93	0.57
	46.43	1.16	7.48	0.00	16.79	0.65	11.80	11.74	1.00	0.74	97.78	0.56
	47.92	1.12	6.73	0.02	16.13	0.68	12.48	11.63	0.96	0.56	98.23	0.58
	48.52	1.39	6.24	0.00	14.75	0.70	13.13	11.49	1.06	0.54	97.82	0.61
	47.46	1.14	6.98	0.02	16.34	0.68	12.02	11.70	0.92	0.66	97.92	0.57
	45.76	1.33	7.97	0.01	17.58	0.70	11.22	11.76	0.99	0.81	98.13	0.53
	48.31	1.18	6.14	0.01	15.31	0.69	13.08	11.59	1.03	0.49	97.82	0.60
	48.11	1.20	6.67	0.02	15.85	0.68	12.58	11.78	1.02	0.56	98.46	0.59
	45.30	1.54	8.35	0.00	17.43	0.66	11.31	11.64	1.23	0.77	98.22	0.54
	44.75	1.71	8.54	0.02	17.40	0.72	10.97	11.53	1.38	0.86	97.88	0.53
	46.11	1.44	7.72	0.00	16.96	0.66	11.82	11.54	1.17	0.77	98.19	0.55
	47.92	1.28	6.68	0.00	15.98	0.67	12.84	11.66	1.02	0.61	98.67	0.59
	45.76	1.37	8.14	0.00	17.23	0.69	11.27	11.62	1.19	0.84	98.11	0.54
	47.62	1.33	6.82	0.06	16.19	0.64	12.50	11.70	0.96	0.63	98.45	0.58
	48.28	0.96	6.59	0.00	16.12	0.65	12.44	11.86	0.70	0.60	98.19	0.58
	47.22	1.44	7.28	0.01	16.24	0.69	12.05	11.60	1.06	0.70	98.30	0.57
	47.46	1.40	6.83	0.00	16.13	0.69	12.36	11.65	1.10	0.58	98.19	0.58
	46.60	1.33	7.68	0.00	16.90	0.71	11.54	11.70	0.94	0.78	98.20	0.55
	44.54	1.70	8.81	0.02	17.87	0.62	10.77	11.60	1.28	0.93	98.15	0.52
	49.19	0.92	5.76	0.03	15.29	0.66	13.35	11.81	0.78	0.50	98.29	0.61
	47.44	1.26	6.98	0.00	16.41	0.66	12.26	11.71	1.00	0.66	98.37	0.57
	47.15	1.03	7.36	0.01	16.57	0.67	12.03	11.79	0.84	0.71	98.15	0.56
	47.96	1.09	6.89	0.00	16.02	0.65	12.43	11.75	0.82	0.61	98.22	0.58
	45.24	1.69	8.25	0.00	17.06	0.67	11.01	11.58	1.24	0.82	97.56	0.53
	47.84	1.32	6.80	0.02	15.85	0.70	12.58	11.54	1.18	0.62	98.44	0.59

Continuation of the table 1

Amphibol composition from Sarkhoi complex granite and melanocratic enclaves.

	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO	MnO	MgO	CaO	Na_2O	K_2O	Total	#Mg
Enclaves (chadacryst from porphyritic enclaves)	47.37	1.27	6.89	0.00	16.29	0.70	12.39	11.70	1.09	0.64	98.36	0.58
	45.75	1.70	8.58	0.02	15.37	0.68	12.28	11.86	1.23	0.86	98.33	0.59
	46.57	1.24	7.46	0.00	17.08	0.69	11.48	11.98	0.94	0.74	98.16	0.55
	47.75	1.06	5.97	0.29	15.25	0.69	12.79	11.71	1.03	0.55	97.07	0.60
	46.90	1.18	6.90	0.26	16.32	0.74	11.77	11.69	0.89	0.66	97.32	0.56
	47.02	1.19	7.13	0.04	16.31	0.67	12.07	11.73	0.86	0.70	97.72	0.57
	45.47	1.34	8.18	0.00	17.33	0.67	11.40	11.65	1.17	0.88	98.09	0.54
	47.67	1.01	7.01	0.02	16.24	0.55	12.28	11.93	0.86	0.67	98.24	0.57
	47.66	0.99	6.95	0.01	16.66	0.52	11.91	11.90	0.90	0.63	98.13	0.56
	47.91	1.15	6.63	0.00	16.31	0.68	12.25	11.54	1.08	0.52	98.08	0.57
	47.08	1.07	6.86	0.00	18.28	0.66	10.97	11.70	0.77	0.66	98.04	0.52
	47.37	1.22	6.88	0.02	15.91	0.69	12.30	11.63	1.07	0.65	97.72	0.58
	47.35	1.20	6.71	0.00	16.61	0.69	11.96	11.73	0.86	0.63	97.74	0.56
	47.93	0.98	7.28	0.03	15.61	0.60	12.72	11.89	0.86	0.58	98.47	0.59
	45.52	1.49	8.05	0.01	17.69	0.68	11.06	11.72	1.08	0.80	98.10	0.53

Continuation of the table 1

Biotite composition from Sarkhoi complex granite and melanocratic enclaves.

	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO	MnO	MgO	CaO	Na_2O	K_2O	Total	#Fe
Granite	36.97	3.21	14.82	0.00	18.74	0.52	11.52	0.00	0.13	9.34	95.26	0.48
	37.53	3.33	14.12	0.00	20.35	0.55	11.28	0.00	0.08	9.31	96.56	0.50
	36.93	2.87	14.58	0.00	19.94	0.47	11.49	0.01	0.10	9.24	95.64	0.49
	37.06	3.10	15.24	0.04	19.21	0.48	11.45	0.00	0.12	9.51	96.21	0.48
	37.03	3.32	14.42	0.02	21.12	0.38	10.76	0.04	0.05	9.39	96.53	0.52
	37.19	3.14	14.52	0.00	19.47	0.56	11.33	0.01	0.08	9.45	95.75	0.49
	37.05	3.17	14.71	0.15	19.66	0.57	11.15	0.03	0.18	9.25	95.92	0.50
	37.21	3.91	14.21	0.02	19.24	0.50	11.85	0.00	0.09	9.47	96.50	0.48
	37.26	3.12	14.49	0.00	19.59	0.49	11.67	0.00	0.14	9.32	96.08	0.49
	37.24	3.48	14.91	0.00	19.59	0.61	10.98	0.00	0.06	9.44	96.30	0.50
	37.04	3.65	13.60	0.00	19.91	0.52	11.53	0.01	0.06	9.32	95.65	0.49
	36.94	3.72	13.75	0.06	19.65	0.44	11.61	0.01	0.04	9.34	95.56	0.49
	36.68	3.84	13.88	0.01	19.55	0.42	11.66	0.01	0.08	9.41	95.54	0.48
	37.17	3.86	13.91	0.01	19.81	0.42	11.58	0.01	0.08	9.45	96.29	0.49
Enclaves (groundmass)	36.49	4.03	13.68	0.00	19.86	0.43	11.44	0.00	0.05	9.46	95.44	0.49
	36.89	3.92	14.36	0.00	19.46	0.40	11.46	0.01	0.08	9.59	96.16	0.49
	36.63	3.40	14.34	0.04	20.81	0.44	10.57	0.03	0.15	9.51	95.92	0.52
	36.91	4.04	14.09	0.01	19.45	0.38	11.71	0.01	0.06	9.52	96.18	0.48
	36.60	3.91	13.97	0.01	19.64	0.43	11.67	0.01	0.12	9.48	95.85	0.49
	36.73	3.31	14.30	0.00	19.93	0.46	11.56	0.01	0.05	9.47	95.81	0.49
	37.40	3.92	13.78	0.07	20.13	0.44	11.10	0.01	0.06	9.43	96.34	0.50
	37.00	3.78	14.45	0.00	19.38	0.38	11.18	0.04	0.09	9.37	95.68	0.49
	37.03	3.89	13.92	0.00	19.96	0.46	11.28	0.00	0.08	9.51	96.13	0.50
	37.26	3.87	14.04	0.07	19.64	0.44	11.65	0.03	0.15	9.33	96.50	0.49
	37.01	3.75	14.09	0.00	20.31	0.44	11.24	0.00	0.06	9.50	96.41	0.50
	37.12	3.90	13.67	0.02	19.89	0.45	11.61	0.01	0.05	9.43	96.14	0.49
	36.81	3.64	14.05	0.00	21.21	0.47	10.65	0.01	0.08	9.58	96.50	0.53
	36.95	3.47	14.16	0.00	20.88	0.43	10.64	0.02	0.13	9.31	96.00	0.52
	37.02	3.84	13.86	0.00	20.49	0.44	11.40	0.01	0.08	9.64	96.76	0.50
	37.06	3.89	13.78	0.01	19.89	0.45	11.43	0.01	0.10	9.39	96.02	0.49
	36.95	3.79	13.88	0.00	20.13	0.44	11.38	0.02	0.13	9.56	96.27	0.50
	37.00	3.71	14.19	0.00	20.37	0.46	11.04	0.01	0.11	9.58	96.47	0.51
	37.15	3.73	14.14	0.01	19.86	0.48	11.22	0.02	0.14	9.50	96.25	0.50
Enclaves (chadacryst from porphyritic enclaves)	37.38	3.72	14.03	0.03	19.15	0.50	11.61	0.03	0.11	9.22	95.77	0.48
	37.14	3.74	14.30	0.04	19.08	0.46	11.84	0.01	0.13	9.51	96.25	0.47
	37.01	3.41	14.31	0.03	20.53	0.47	10.96	0.02	0.09	9.42	96.24	0.51
	36.56	3.78	14.06	0.00	19.95	0.41	11.35	0.01	0.08	9.43	95.63	0.50
	37.19	3.61	14.32	0.00	20.30	0.46	11.20	0.01	0.10	9.48	96.67	0.50
	36.98	3.50	14.26	0.02	20.50	0.47	11.03	0.00	0.06	9.39	96.21	0.51
	36.89	3.62	14.43	0.02	20.39	0.42	10.95	0.00	0.10	9.49	96.30	0.51
	36.89	3.72	14.19	0.00	20.58	0.44	10.98	0.00	0.07	9.47	96.34	0.51
	36.92	3.73	14.25	0.04	20.16	0.41	11.28	0.00	0.07	9.44	96.31	0.50
	36.95	3.73	13.82	0.00	20.08	0.43	11.65	0.00	0.05	9.39	96.10	0.49

Continuation of the table 1

Plagioclase composition from Sarkhoi complex granite and melanocratic enclaves.

	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO	MnO	MgO	CaO	Na_2O	K_2O	Total	X_{An}
Granite (crystal center)	58.36	0.00	26.25	0.00	0.12	0.00	0.00	8.68	6.46	0.19	100.05	42.16
	51.65	0.00	30.87	0.02	0.16	0.02	0.00	13.73	3.58	0.08	100.11	67.60
	58.51	0.00	26.07	0.01	0.14	0.00	0.00	8.31	6.45	0.19	99.68	41.09
	52.29	0.03	30.01	0.01	0.15	0.00	0.00	13.22	3.92	0.09	99.72	64.74
	58.84	0.02	25.65	0.01	0.13	0.00	0.00	8.00	6.78	0.16	99.59	39.11
	60.56	0.02	24.79	0.01	0.20	0.02	0.00	6.98	7.49	0.17	100.24	33.67
	60.78	0.02	24.94	0.00	0.11	0.00	0.00	6.96	7.45	0.18	100.43	33.70
	59.19	0.00	25.72	0.01	0.11	0.00	0.00	8.09	6.80	0.18	100.10	39.25
	59.40	0.01	25.19	0.00	0.11	0.00	0.00	7.65	7.05	0.20	99.61	37.07
	57.75	0.01	26.63	0.00	0.13	0.00	0.00	9.02	6.24	0.15	99.93	44.01
	49.27	0.00	31.95	0.00	0.16	0.02	0.00	15.60	2.55	0.04	99.59	76.98
	57.04	0.02	27.21	0.00	0.14	0.00	0.00	9.79	5.79	0.16	100.15	47.86
	54.92	0.02	28.49	0.00	0.14	0.00	0.00	11.21	4.95	0.13	99.86	55.17
	55.44	0.01	28.09	0.00	0.14	0.00	0.00	10.87	5.22	0.13	99.91	53.09
	54.01	0.01	28.88	0.00	0.18	0.00	0.00	11.74	4.74	0.13	99.70	57.36
	55.09	0.02	27.79	0.01	0.27	0.00	0.00	10.68	5.21	0.21	99.29	52.47
	60.41	0.00	24.82	0.00	0.17	0.00	0.00	6.93	7.34	0.34	100.02	33.61
Granite (crystal rims)	60.46	0.02	24.72	0.00	0.14	0.00	0.00	6.99	7.44	0.23	99.99	33.73
	61.26	0.00	23.90	0.02	0.17	0.00	0.00	6.14	8.13	0.23	99.86	29.07
	60.89	0.01	24.48	0.01	0.14	0.00	0.00	6.60	7.58	0.21	99.91	32.09
	60.55	0.02	24.65	0.00	0.18	0.02	0.00	6.83	7.52	0.33	100.10	32.79
	60.61	0.00	24.89	0.02	0.19	0.00	0.00	6.94	7.42	0.19	100.27	33.70
	60.15	0.01	24.54	0.01	0.12	0.01	0.00	6.71	7.70	0.17	99.43	32.18
	60.14	0.00	24.57	0.00	0.14	0.00	0.00	6.93	7.59	0.28	99.65	33.01
	61.09	0.02	24.11	0.00	0.17	0.00	0.00	6.38	7.63	0.27	99.68	31.09
	61.12	0.00	24.20	0.00	0.18	0.00	0.00	6.33	7.88	0.17	99.87	30.43
	61.22	0.00	24.41	0.00	0.15	0.01	0.00	6.37	7.63	0.28	100.08	31.08
	60.83	0.00	24.48	0.00	0.14	0.00	0.00	6.66	7.42	0.27	99.81	32.61
	60.58	0.00	24.48	0.01	0.15	0.01	0.00	6.50	7.68	0.25	99.67	31.40
	60.40	0.00	24.63	0.01	0.17	0.00	0.00	6.92	7.32	0.24	99.69	33.86
	60.42	0.01	24.64	0.00	0.19	0.01	0.00	6.74	7.61	0.30	99.91	32.29
	61.09	0.02	23.93	0.00	0.20	0.00	0.00	6.16	7.91	0.32	99.64	29.55
	60.64	0.01	24.29	0.00	0.19	0.01	0.00	6.72	7.57	0.24	99.67	32.46
	60.63	0.02	24.32	0.00	0.17	0.01	0.00	6.55	7.68	0.29	99.66	31.49

Plagioclase composition from Sarkhoi complex granite and melanocratic enclaves.

	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO	MnO	MgO	CaO	Na_2O	K_2O	Total	X_{An}
Enclaves (center zone of porphyritic enclaves)	59.06	0.02	25.61	0.00	0.12	0.00	0.00	7.91	6.77	0.18	99.67	38.82
	60.77	0.00	24.46	0.00	0.16	0.01	0.00	6.62	7.65	0.16	99.83	32.05
	59.49	0.03	25.20	0.01	0.17	0.00	0.00	7.38	7.12	0.22	99.61	35.92
	58.14	0.02	26.00	0.00	0.15	0.00	0.00	8.42	6.75	0.17	99.66	40.43
	59.31	0.02	25.54	0.00	0.16	0.00	0.00	7.74	7.12	0.20	100.09	37.10
	60.33	0.01	24.72	0.02	0.20	0.00	0.00	6.81	7.42	0.22	99.74	33.21
	60.75	0.01	24.59	0.07	0.13	0.01	0.00	6.56	7.63	0.12	99.85	31.97
	61.24	0.01	23.90	0.00	0.20	0.00	0.00	6.23	7.74	0.29	99.61	30.25
	60.07	0.00	25.01	0.00	0.13	0.00	0.00	7.19	7.28	0.21	99.89	34.89
	61.11	0.00	24.11	0.01	0.16	0.01	0.00	6.56	7.48	0.24	99.66	32.19
	59.81	0.00	24.84	0.00	0.20	0.00	0.00	7.16	7.48	0.18	99.67	34.24
	60.43	0.02	24.67	0.00	0.13	0.00	0.00	6.92	7.44	0.17	99.76	33.61
	60.96	0.00	24.27	0.00	0.14	0.01	0.00	6.45	7.79	0.21	99.83	31.01
	60.65	0.00	24.43	0.00	0.16	0.00	0.00	6.55	7.81	0.18	99.78	31.35
	60.73	0.01	24.26	0.00	0.14	0.01	0.00	6.56	7.53	0.19	99.43	32.14
	59.91	0.00	24.61	0.00	0.15	0.00	0.00	7.10	7.49	0.17	99.43	34.07
	60.44	0.02	24.61	0.07	0.17	0.01	0.00	6.90	7.46	0.19	99.87	33.46
	58.49	0.01	25.83	0.00	0.15	0.01	0.00	8.33	6.71	0.15	99.68	40.33
	60.82	0.01	24.16	0.01	0.13	0.00	0.00	6.49	7.55	0.19	99.36	31.85
Enclaves (rim zone of porphyritic enclaves)	60.57	0.00	24.60	0.00	0.15	0.01	0.00	6.77	7.53	0.28	99.90	32.66
	61.24	0.02	24.10	0.00	0.13	0.00	0.00	6.18	7.70	0.30	99.66	30.20
	60.01	0.00	24.88	0.00	0.12	0.00	0.00	7.25	7.13	0.18	99.58	35.60
	60.90	0.04	24.38	0.00	0.16	0.00	0.00	6.53	7.67	0.18	99.86	31.65
	61.12	0.03	24.13	0.00	0.16	0.00	0.00	6.41	7.55	0.43	99.83	31.13
	60.85	0.01	24.45	0.00	0.16	0.00	0.00	6.73	7.59	0.24	100.01	32.44
	61.29	0.01	24.29	0.00	0.15	0.01	0.00	6.23	7.82	0.31	100.11	30.02
	60.41	0.03	24.52	0.00	0.18	0.00	0.00	6.83	7.46	0.29	99.72	33.03
	61.47	0.01	23.99	0.04	0.15	0.01	0.00	6.35	7.61	0.29	99.91	31.01
	58.16	0.01	26.09	0.00	0.13	0.00	0.00	8.60	6.58	0.24	99.81	41.36
	61.31	0.00	23.99	0.00	0.14	0.00	0.00	6.18	7.67	0.34	99.63	30.20
	60.50	0.03	24.36	0.00	0.16	0.00	0.00	6.64	7.52	0.38	99.60	32.09
	60.88	0.00	24.43	0.00	0.17	0.00	0.00	6.58	7.44	0.40	99.90	32.05
	60.75	0.02	24.38	0.00	0.18	0.00	0.00	6.60	7.53	0.38	99.83	31.91
	60.58	0.01	24.41	0.00	0.15	0.00	0.00	6.71	7.41	0.36	99.64	32.66
	59.49	0.01	25.29	0.00	0.17	0.00	0.00	7.68	6.77	0.29	99.69	37.89
	61.33	0.02	23.98	0.02	0.18	0.00	0.00	6.05	7.97	0.37	99.92	28.95

Continuation of the table 1

Plagioclase composition from Sarkhoi complex granite and melanocratic enclaves.

	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO	MnO	MgO	CaO	Na_2O	K_2O	Total	X_{An}
Enclaves (non-zonal grains of groundmass)	61.00	0.01	24.28	0.02	0.16	0.00	0.00	6.61	7.65	0.20	99.93	31.95
	60.44	0.02	24.61	0.00	0.14	0.01	0.00	6.91	7.38	0.19	99.69	33.71
	59.96	0.02	24.82	0.02	0.17	0.01	0.00	7.04	7.37	0.21	99.61	34.12
	59.80	0.01	24.82	0.02	0.16	0.00	0.00	7.07	7.46	0.16	99.50	34.07
	60.70	0.01	24.36	0.00	0.15	0.00	0.00	6.50	7.74	0.22	99.68	31.31
	60.09	0.02	24.71	0.00	0.17	0.00	0.00	6.86	7.40	0.26	99.51	33.37
	59.81	0.00	24.73	0.01	0.13	0.00	0.00	6.89	7.44	0.21	99.22	33.41
	60.26	0.02	24.07	0.15	0.14	0.00	0.00	6.82	7.53	0.18	99.17	32.99
	59.64	0.01	25.29	0.00	0.15	0.00	0.00	7.63	6.88	0.13	99.73	37.70
	59.71	0.00	24.87	0.03	0.15	0.00	0.00	7.23	7.29	0.15	99.43	35.09
	61.07	0.01	24.27	0.01	0.12	0.01	0.00	6.55	7.64	0.28	99.97	31.61
	59.77	0.01	25.11	0.00	0.14	0.00	0.00	7.51	7.17	0.23	99.94	36.18
	59.96	0.02	25.10	0.00	0.12	0.00	0.00	7.31	7.33	0.15	100.00	35.22
	60.68	0.01	24.37	0.01	0.16	0.00	0.00	6.57	7.74	0.25	99.79	31.47
	61.49	0.01	23.92	0.00	0.15	0.00	0.00	6.23	7.79	0.22	99.81	30.28
	60.66	0.01	24.56	0.09	0.23	0.01	0.00	6.33	7.77	0.14	99.79	30.77
	61.16	0.02	24.02	0.02	0.18	0.00	0.00	6.25	7.73	0.33	99.70	30.31
	61.12	0.01	23.99	0.36	0.18	0.00	0.00	6.79	7.13	0.30	99.88	33.85
	61.34	0.00	23.94	0.00	0.17	0.00	0.00	6.19	7.87	0.28	99.79	29.83
	61.11	0.00	23.94	0.00	0.16	0.02	0.00	6.34	8.14	0.34	100.05	29.52
	60.63	0.00	24.63	0.01	0.16	0.00	0.00	6.88	7.37	0.33	100.02	33.40
	60.35	0.00	24.70	0.03	0.15	0.00	0.00	6.83	7.47	0.28	99.81	33.00
	60.32	0.02	24.71	0.00	0.15	0.00	0.00	6.99	7.32	0.31	99.82	33.92
	60.52	0.02	24.76	0.01	0.18	0.01	0.00	6.35	7.50	0.35	99.71	31.19
	60.95	0.01	24.42	0.01	0.17	0.00	0.00	6.65	7.69	0.23	100.13	31.93
	58.39	0.01	25.99	0.00	0.15	0.00	0.00	8.41	6.71	0.16	99.81	40.54
	59.66	0.02	25.22	0.01	0.14	0.00	0.00	7.55	7.05	0.18	99.83	36.77
	60.42	0.01	24.68	0.00	0.13	0.00	0.00	6.74	7.40	0.20	99.58	33.08
	60.22	0.02	24.61	0.00	0.14	0.00	0.00	6.94	7.49	0.22	99.64	33.43
	58.79	0.02	25.61	0.00	0.19	0.00	0.00	8.17	6.67	0.19	99.64	39.92
	59.40	0.00	25.14	0.00	0.12	0.01	0.00	7.31	7.43	0.18	99.58	34.84
	59.97	0.02	24.94	0.00	0.12	0.00	0.00	7.12	7.34	0.24	99.75	34.43
	60.90	0.01	24.46	0.03	0.17	0.00	0.00	6.71	7.45	0.32	100.06	32.60
	59.99	0.01	24.92	0.00	0.13	0.01	0.00	7.01	7.46	0.17	99.71	33.85
	61.19	0.00	24.23	0.01	0.16	0.00	0.00	6.43	7.90	0.18	100.11	30.70
	60.62	0.00	24.55	0.00	0.14	0.00	0.00	6.86	7.40	0.19	99.76	33.49

Table 2

Contents of major (wt. %) trace and rare-earth (ppm) elements in the representative samples from Sarkhoi complex granite and melanocratic enclaves

	Sarkhoi complex granite							
Sample	**K 470-1**	**K 503-5Y**	**Д2071**	**Д1019е**	**Д2088**	**Д97в**	**Д2019**	**Р147**
SiO_2	64.35	62.22	65.10	66.60	68.50	69.00	72.40	74.79
TiO_2	0.65	0.70	0.63	0.54	0.39	0.42	0.31	0.15
Al_2O_3	16.11	17.42	16.10	15.85	15.70	14.90	13.70	13.27
$Fe_2O_3^T$	5.09	5.46	5.09	3.71	3.48	3.60	2.49	1.68
MnO	0.11	0.09	0.12	0.07	0.06	0.05	0.08	0.03
MgO	1.50	1.76	1.48	0.98	0.89	1.00	0.39	0.20
CaO	4.07	5.01	3.20	2.84	2.52	2.55	2.75	1.23
Na_2O	4.30	4.67	4.07	4.75	4.20	3.77	4.20	3.25
K_2O	2.48	1.58	3.33	3.14	3.00	3.38	4.17	4.59
P_2O_5	0.20	0.23	0.19	0.12	0.15	0.12	0.11	0.04
LOI	0.05	0.26	0.60	1.28	0.28	1.26	0.30	0.42
Total	**98.91**	**99.40**	**99.91**	**99.88**	**99.17**	**100.05**	**100.90**	**99.65**
Rb	61.4	35.5	50.00	81.0	66.00	88.0	98.0	190
Sr	465	761	490	588	360	328	210	155
Y	24.3	19.7	21.0	32.7	14.8	18.5	23.3	13.7
Zr	229	225	228	200	118	109	95.0	76.9
Nb	9.49	6.17	10.9	9.10	6.57	9.88	1.80	11.1
Cs	1.12	1.24	1.00	1.00	-	3.13	-	3.55
Ba	707	815	2740	1386	1049	608	756	895
La	31.2	26.0	23.9	48.4	34.3	30.8	32.8	25.7
Ce	60.7	48.1	41.7	89.0	59.2	55.3	73.4	51.6
Pr	7.14	5.89	-	-	7.03	6.85	9.83	5.58
Nd	27.6	24.3	20.3	44.0	22.9	25.5	34.9	19.5
Sm	4.99	4.63	4.70	10.5	4.01	4.46	6.70	3.55
Eu	1.20	1.41	1.39	1.80	0.93	1.03	1.07	0.79
Gd	4.74	3.80	4.80	7.00	2.88	4.22	4.77	3.13
Tb	0.70	0.61	0.79	1.55	0.46	0.66	0.84	0.49
Dy	4.06	3.19	-	-	2.66	3.53	4.39	2.42
Ho	0.85	0.67	-	-	0.58	0.72	0.93	0.51
Er	2.55	1.93	-	-	1.74	2.19	2.79	1.44
Tm	0.39	0.30	-	-	0.26	0.35	0.40	0.23
Yb	2.44	1.94	2.10	2.95	1.74	1.97	2.61	1.37
Lu	0.37	0.30	0.29	0.42	0.28	0.29	0.40	0.23
Hf	5.25	5.05	5.80	4.80	3.61	3.69	3.42	2.53
Ta	0.48	0.34	0.20	1.20	0.34	1.00	0.24	1.31
Th	7.53	5.15	7.50	8.10	6.08	17.5	13.5	14.5
U	1.21	1.38	1.40	1.80	0.95	3.25	2.52	1.80
La/Yb_N	8.61	9.02	7.67	11.06	13.29	10.54	8.48	12.65
Gd/Yb_N	1.57	1.58	1.84	1.91	1.34	1.73	1.47	1.84
δEu	0.75	1.00	0.89	0.61	0.80	0.72	0.55	0.71

The sample Д2071, Д1019е, Д2088, Д97в, Д2019, Р147 after [Rudnev, 2013, in Russian].

Contents of major (wt. %) trace and rare-earth (ppm) elements in the representative samples from Sarkhoi complex granite and melanocratic enclaves

	Melanocratic enclaves										
Sample	**K 470-I**	**K 470-II**	**K 470-III**	**K 503-1**	**K 503-2**	**K 503-3**	**K 503-5**	**K 503-6**	**K 504-1**	**K 504-2**	**K 504-3**
SiO_2	56.53	57.91	56.18	52.62	51.13	50.35	49.80	50.96	51.03	51.22	50.93
TiO_2	0.88	0.86	0.81	1.01	0.91	1.15	1.10	0.99	1.28	1.11	1.29
Al_2O_3	17.04	16.92	16.54	18.54	19.08	18.59	19.75	19.14	16.83	18.56	18.24
$Fe_2O_3^T$	8.52	7.73	8.41	9.49	9.43	10.00	10.47	9.44	8.83	9.52	10.93
MnO	0.21	0.21	0.27	0.21	0.20	0.23	0.20	0.19	0.14	0.26	0.25
MgO	3.06	2.75	4.07	3.75	4.32	4.16	4.19	3.93	6.77	3.76	3.40
CaO	5.29	4.99	5.28	7.40	7.97	7.85	6.89	8.46	8.83	7.71	6.32
Na_2O	5.07	5.27	4.93	4.56	4.46	4.47	4.44	4.57	3.72	4.71	4.75
K_2O	1.75	1.81	1.91	1.33	1.27	1.51	2.14	0.93	0.89	1.31	2.16
P_2O_5	0.26	0.29	0.33	0.31	0.26	0.32	0.33	0.29	0.29	0.41	0.48
LOI	1.04	0.84	0.82	0.44	0.46	0.89	0.52	0.53	1.09	1.04	0.56
Total	99.66	99.58	99.56	99.65	99.50	99.52	99.82	99.43	99.70	99.62	99.31
Rb	62.1	52.5	-	-	29.2	-	62.9	16.1	-	36.4	55.5
Sr	399	385	-	-	772	-	697	840	-	668	567
Y	30.7	33.4	-	-	31.7	-	21.7	27.2	-	46.5	33.3
Zr	99.6	144	-	-	83.6	-	66.3	73.4	-	132	75.5
Nb	16.1	17.7	-	-	6.26	-	5.58	6.91	-	11.2	10.8
Cs	1.42	0.90	-	-	1.05	-	2.10	0.73	-	2.37	2.67
Ba	344	259	-	-	525	-	736	433	-	493	853
La	50.0	59.7	-	-	22.8	-	17.6	25.1	-	37.8	40.1
Ce	81.7	99.0	-	-	51.0	-	31.6	57.5	-	81.1	73.6
Pr	9.10	10.4	-	-	7.45	-	4.40	7.83	-	11.5	8.87
Nd	30.5	35.7	-	-	31.7	-	20.4	30.7	-	50.7	33.6
Sm	5.83	6.86	-	-	6.80	-	4.89	5.72	-	11.3	7.03
Eu	1.34	1.39	-	-	1.68	-	0.94	2.04	-	2.18	1.69
Gd	5.32	6.38	-	-	6.05	-	4.44	4.79	-	9.26	5.99
Tb	0.88	0.97	-	-	0.96	-	0.73	0.80	-	1.30	0.95
Dy	5.04	5.23	-	-	5.35	-	4.06	4.40	-	7.92	5.65
Ho	1.07	1.14	-	-	1.09	-	0.81	0.97	-	1.69	1.18
Er	2.84	3.33	-	-	3.26	-	2.15	2.70	-	4.53	3.28
Tm	0.47	0.55	-	-	0.47	-	0.31	0.44	-	0.71	0.53
Yb	3.30	3.90	-	-	3.10	-	1.78	3.00	-	4.37	3.40
Lu	0.49	0.58	-	-	0.45	-	0.27	0.42	-	0.62	0.49
Hf	3.27	4.13	-	-	2.07	-	1.64	1.79	-	3.40	2.06
Ta	0.75	0.93	-	-	0.24	-	0.18	0.26	-	0.45	0.49
Th	13.2	15.3	-	-	0.86	-	0.99	0.76	-	3.64	4.80
U	3.06	2.67	-	-	0.28	-	0.33	0.22	-	0.96	1.16
La/Yb_N	10.22	10.32	-	-	4.95	-	6.68	5.65	-	5.83	7.96
Gd/Yb_N	1.30	1.32	-	-	1.57	-	2.02	1.29	-	1.71	1.42
δEu	0.72	0.63	-	-	0.78	-	0.61	1.16	-	0.63	0.78

Table 3

U-Pb zircon isotope ratios and derived age determinations

К 504-1										
№	Isotop ratios					Age, MA				
	Pb^{207}/U^{235}	1σ	Pb^{206}/U^{238}	1σ	Rho	Pb^{206}/U^{238}	1σ	Pb^{207}/U^{235}	1σ	D, %
1	0.60145	2.1	0.07698	1.8	0.89	478	17	478	16	0.02
2	0.61378	2.3	0.07787	1.9	0.82	483	17	486	17	0.52
3	0.60763	2.0	0.07709	1.8	0.90	479	17	482	16	0.71
4	0.60588	2.1	0.07714	1.8	0.89	479	17	481	16	0.42
5	0.61215	2.3	0.07730	1.9	0.80	480	17	485	18	1.02
6	0.61244	2.8	0.07835	1.9	0.68	486	18	485	22	-0.25
7	0.61053	2.5	0.07700	1.9	0.75	478	17	484	19	1.19
8	0.60285	2.5	0.07694	1.9	0.76	478	17	479	19	0.25
9	0.60402	2.0	0.07709	1.8	0.93	479	17	480	15	0.21
10	0.60706	2.0	0.07717	1.8	0.90	479	17	482	16	0.52
11	0.61423	2.1	0.07799	1.8	0.86	484	17	486	17	0.43
12	0.60933	2.0	0.07764	1.8	0.92	482	17	483	15	0.23
13	0.61088	2.3	0.07773	1.9	0.81	483	17	484	18	0.31
14	0.60663	2.3	0.07765	1.9	0.81	482	17	481	18	-0.15
15	0.61441	2.1	0.07811	1.8	0.88	485	17	486	16	0.29
16	0.60250	2.1	0.07717	1.8	0.89	479	17	479	16	-0.08
17	0.60958	2.0	0.07803	1.8	0.93	484	17	483	15	-0.21
18	0.60396	2.1	0.07686	1.8	0.87	477	17	480	16	0.48
19	0.60984	2.1	0.07792	1.8	0.88	484	17	484	16	-0.04
20	0.60315	2.0	0.07666	1.8	0.91	476	17	479	15	0.65
21	0.60710	2.1	0.07707	1.8	0.86	479	17	482	16	0.65
22	0.60314	2.4	0.07674	1.9	0.78	477	17	479	18	0.55
23	0.59903	2.3	0.07667	1.9	0.81	476	17	477	18	0.08
24	0.60365	2.2	0.07712	1.9	0.84	479	17	480	17	0.13
25	0.60922	2.4	0.07688	1.9	0.77	478	17	483	19	1.17
26	0.60724	1.9	0.07768	1.8	0.94	482	17	482	15	-0.10
27	0.60480	2.4	0.07734	1.9	0.78	480	17	480	18	0.02
28	0.60502	2.4	0.07750	1.9	0.77	481	17	480	19	-0.17
29	0.60591	2.0	0.07755	1.8	0.93	482	17	481	15	-0.10
30	0.60831	2.3	0.07706	1.9	0.81	479	17	483	18	0.84
31	0.60531	2.2	0.07686	1.8	0.84	477	17	481	17	0.67
32	0.58729	2.1	0.07553	1.8	0.87	469	17	469	16	-0.06
33	0.60703	2.1	0.07723	1.8	0.86	480	17	482	16	0.46
34	0.61176	2.1	0.07743	1.8	0.89	481	17	485	16	0.81
35	0.60441	2.5	0.07683	1.9	0.74	477	17	480	19	0.59
36	0.59732	2.0	0.07634	1.8	0.93	474	17	476	15	0.27
37	0.60262	2.1	0.07645	1.8	0.88	475	17	479	16	0.84
38	0.60460	2.5	0.07695	1.9	0.76	478	17	480	19	0.46
39	0.60020	2.0	0.07682	1.8	0.90	477	17	477	15	0.06
40	0.60617	2.5	0.07685	1.9	0.74	477	17	481	19	0.80
41	0.60732	2.4	0.07678	1.9	0.79	477	17	482	18	1.05
42	0.60791	2.2	0.07743	1.8	0.84	481	17	482	17	0.31
43	0.61232	2.4	0.07795	1.9	0.79	484	17	485	18	0.23
44	0.60625	2.2	0.07726	1.8	0.85	480	17	481	17	0.31

U-Pb zircon isotope ratios and derived age determinations

К 503-5г										
№	Isotop ratios				Rho	Age, MA				
	Pb^{207}/U^{235}	1σ	Pb^{206}/U^{238}	1σ		Pb^{206}/U^{238}	1σ	Pb^{207}/U^{235}	1σ	D, %
1	0.57374	0.01719	0.07357	0.00142	0.64	458	9	460	11	0.61
2	0.56791	0.01248	0.07406	0.00137	0.84	461	8	457	8	-0.85
3	0.57071	0.01328	0.07358	0.00137	0.80	458	8	459	9	0.17
4	0.56407	0.01361	0.07235	0.00135	0.77	450	8	454	9	0.87
5	0.58364	0.01209	0.07519	0.00138	0.89	467	8	467	8	-0.11
6	0.56093	0.01295	0.07244	0.00134	0.80	451	8	452	8	0.29
7	0.56564	0.01269	0.07329	0.00135	0.82	456	8	455	8	-0.18
8	0.55762	0.01241	0.07246	0.00134	0.83	451	8	450	8	-0.22
9	0.57273	0.01347	0.07322	0.00136	0.79	456	8	460	9	0.94
10	0.56336	0.01579	0.07285	0.00139	0.68	453	8	454	10	0.09
11	0.56963	0.0156	0.0739	0.0014	0.69	460	8	458	10	-0.39
12	0.56289	0.01469	0.07293	0.00137	0.72	454	8	453	10	-0.09
13	0.56317	0.01174	0.0732	0.00134	0.88	455	8	454	8	-0.40
14	0.56147	0.01383	0.07281	0.00136	0.76	453	8	453	9	-0.11
15	0.56807	0.01195	0.07362	0.00134	0.87	458	8	457	8	-0.24
16	0.57144	0.01403	0.07294	0.00136	0.76	454	8	459	9	1.12
17	0.57226	0.01327	0.07336	0.00135	0.79	456	8	460	9	0.70
18	0.56378	0.01256	0.07313	0.00134	0.82	455	8	454	8	-0.22
19	0.55601	0.01627	0.0721	0.00138	0.65	449	8	449	11	0.02
20	0.55624	0.01441	0.07229	0.00135	0.72	450	8	449	9	-0.20
21	0.55683	0.01271	0.07279	0.00134	0.81	453	8	450	8	-0.77
22	0.56884	0.01259	0.07337	0.00134	0.83	457	8	457	8	0.18
23	0.56296	0.01578	0.07215	0.00137	0.68	449	8	454	10	0.98
24	0.55895	0.01519	0.07253	0.00137	0.70	451	8	451	10	-0.13
25	0.56095	0.01426	0.07248	0.00135	0.73	451	8	452	9	0.22
26	0.56421	0.01361	0.07278	0.00135	0.77	453	8	454	9	0.31
27	0.58021	0.01308	0.07448	0.00136	0.81	463	8	465	8	0.32
28	0.57726	0.01423	0.07405	0.00137	0.75	461	8	463	9	0.48
29	0.56257	0.01515	0.07243	0.00136	0.70	451	8	453	10	0.53
30	0.57479	0.01535	0.0735	0.00138	0.70	457	8	461	10	0.85
31	0.56125	0.01581	0.07233	0.00137	0.67	450	8	452	10	0.47
32	0.55886	0.01322	0.07248	0.00133	0.78	451	8	451	9	-0.07
33	0.56628	0.01463	0.07329	0.00137	0.72	456	8	456	9	-0.07
34	0.55891	0.01329	0.07227	0.00133	0.77	450	8	451	9	0.22
35	0.55991	0.01335	0.07257	0.00133	0.77	452	8	452	9	-0.02
36	0.56329	0.014	0.07221	0.00134	0.75	449	8	454	9	0.96
37	0.57822	0.01379	0.07451	0.00137	0.77	463	8	463	9	0.00
38	0.56306	0.0137	0.07269	0.00134	0.76	452	8	454	9	0.24
39	0.55899	0.01292	0.07258	0.00133	0.79	452	8	451	8	-0.18
40	0.56277	0.01578	0.07227	0.00136	0.67	450	8	453	10	0.78
41	0.56119	0.01281	0.07283	0.00133	0.80	453	8	452	8	-0.20
42	0.56143	0.01349	0.07284	0.00133	0.76	453	8	453	9	-0.15
43	0.56521	0.0153	0.07287	0.00136	0.69	453	8	455	10	0.33
44	0.57215	0.01481	0.07362	0.00137	0.72	458	8	459	10	0.33
45	0.56809	0.01832	0.07328	0.00142	0.60	456	9	457	12	0.20
46	0.56287	0.01389	0.07262	0.00131	0.73	452	8	453	9	0.33
47	0.55699	0.01410	0.07246	0.00131	0.71	451	8	450	9	-0.29
48	0.55913	0.01119	0.07245	0.00127	0.88	451	8	451	7	0.02
49	0.57040	0.01319	0.0733	0.00131	0.77	456	8	458	9	0.50
50	0.56336	0.01295	0.07306	0.00131	0.78	455	8	454	8	-0.18
51	0.56124	0.01385	0.07217	0.0013	0.73	449	8	452	9	0.69

Continuation of the table 3

U-Pb zircon isotope ratios and derived age determinations

К 503-5г										
№	Isotop ratios				Rho	Age, MA				
	Pb^{207}/U^{235}	1σ	Pb^{206}/U^{238}	1σ		Pb^{206}/U^{238}	1σ	Pb^{207}/U^{235}	1σ	D, %
52	0.56323	0.01436	0.07274	0.00132	0.71	453	8	454	9	0.22
53	0.57011	0.01328	0.07344	0.00132	0.77	457	8	458	9	0.26
54	0.56245	0.01662	0.07262	0.00136	0.63	452	8	453	11	0.27
55	0.68211	0.01335	0.08486	0.00153	0.92	525	9	528	8	0.59
56	0.62766	0.01365	0.07978	0.00142	0.82	495	8	495	9	-0.04
57	0.62800	0.01313	0.07945	0.00144	0.87	493	9	495	8	0.41
58	0.61221	0.01292	0.07769	0.00141	0.86	482	8	485	8	0.56
59	0.61184	0.01395	0.07752	0.00141	0.80	481	8	485	9	0.71
60	0.59805	0.01239	0.07685	0.00136	0.85	477	8	476	8	-0.27
Д2071										
№	Isotop ratios				Rho	Age, MA				
	Pb^{207}/U^{235}	1σ	Pb^{206}/U^{238}	1σ		Pb^{206}/U^{238}	1σ	Pb^{207}/U^{235}	1σ	D, %
1	0.56442	0.01746	0.07273	0.00125	0.56	452.6	7.53	454.4	11.33	0.40
2	0.56650	0.0177	0.0731	0.00126	0.55	454.8	7.55	455.7	11.35	0.20
3	0.56670	0.01359	0.07302	0.00122	0.70	454.3	7.35	455.9	8.81	0.35
4	0.56178	0.02013	0.07269	0.00128	0.49	452.3	7.69	452.7	13.09	0.09
5	0.56138	0.01785	0.07277	0.00126	0.54	452.8	7.56	452.4	11.61	-0.09
6	0.56052	0.0191	0.07258	0.00129	0.52	451.6	7.73	451.9	12.43	0.07
7	0.56879	0.0146	0.07315	0.00121	0.64	455.1	7.29	457.2	9.45	0.46
8	0.56774	0.01539	0.07232	0.00121	0.62	450.1	7.26	456.5	9.97	1.42
9	0.56946	0.01855	0.07282	0.00125	0.53	453.1	7.5	457.7	12	1.02
10	0.56646	0.01661	0.07314	0.00121	0.56	455.1	7.27	455.7	10.77	0.13
11	0.56760	0.01523	0.07327	0.0012	0.61	455.8	7.24	456.5	9.87	0.15
12	0.56788	0.01934	0.0733	0.00127	0.51	456.0	7.63	456.6	12.52	0.13
13	0.56845	0.0246	0.07338	0.00135	0.43	456.5	8.08	457	15.93	0.11
14	0.55474	0.0152	0.0717	0.00122	0.62	446.4	7.33	448.1	9.93	0.38
15	0.56920	0.02212	0.07353	0.00131	0.46	457.4	7.86	457.9	14.2	0.11
16	0.56620	0.01583	0.07295	0.00122	0.60	453.9	7.33	455.6	10.26	0.37
17	0.56174	0.01323	0.07272	0.00119	0.69	452.5	7.17	452.7	8.6	0.04
18	0.56950	0.01672	0.07319	0.00123	0.57	455.3	7.37	457.7	10.82	0.53
19	0.55938	0.01773	0.07259	0.00123	0.53	451.7	7.38	451.1	11.54	-0.13
20	0.56269	0.01618	0.07272	0.00121	0.58	452.5	7.3	453.3	10.51	0.18
21	0.56037	0.01658	0.0723	0.00121	0.57	450.0	7.28	451.9	10.73	0.42
22	0.57092	0.01388	0.07287	0.00119	0.67	453.4	7.18	458.6	8.97	1.15
23	0.56746	0.01366	0.0732	0.0012	0.68	455.4	7.2	456.4	8.85	0.22
24	0.56160	0.01454	0.07317	0.00133	0.70	455.0	8	453	9	-0.57
25	0.55950	0.01388	0.07191	0.00129	0.72	448.0	8	451	9	0.80
26	0.55088	0.01113	0.07164	0.00126	0.87	446.0	8	446	7	-0.09
27	0.55990	0.01189	0.07244	0.00128	0.83	451.0	8	452	8	0.13
28	0.56122	0.01205	0.0727	0.00128	0.82	452.0	8	452	8	-0.02
29	0.68538	0.0133	0.08295	0.00145	0.90	514.0	9	530	8	3.17
30	0.61486	0.0122	0.07754	0.00136	0.88	481.0	8	487	8	1.08
31	0.62274	0.01233	0.07701	0.00135	0.89	478.0	8	492	8	2.78
32	0.59325	0.01157	0.07594	0.00133	0.90	472.0	8	473	7	0.21

Table 4

Sm-Nd isotope ratios in Sarkhoi complex granite and melanocratic enclaves

Sample	Sm	Nd	Isotop ratios, ±2σ		Age, MA	$\varepsilon_{Nd}(0)$	$(^{143}Nd/^{144}Nd)T$	$\varepsilon_{Nd}(T)$	$T_{Nd}(DM)$, MA	$T_{Nd}(DM\text{-}2st)$, MA
	ppm		$^{147}Sm/^{144}Nd$	$^{143}Nd/^{144}Nd$						
Д1019е*	8.97	50.86	0.1066	0.512459±11	450	-3.5	0.512145	1.7	986	1064
К504-1	7.702	38.109	0.1222	0.512169±6	480	-1.3	0.512185	3.2	971	961

* after [Rudnev et al., 2006, in Russian]