

Table S4. Contents of trace and rare elements in magmatic rocks (ppm) according to data ICP-MS analysis and parameters of tetrad effects

Element	T 704/5	T 705/2	T 706/3	T 708/2	T 628/1	T 629/1	T 629/4	T 629/6	T 630/2	T 632/2	T 632/6	T 635/1	T 750/2	T 750/4	T 751/1	T 752/5	T 753/4
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Be	1.21	3.15	2.53	1.88	4.27	1.57	2.33	6.6	2.84	3.63	4.48	9.8	3.52	6.3	4.75	5.8	5.4
V	57	17	6.5	84	81	29	8.3	36	6.6	4.53	19	-	31	6.2	36	4.63	8.5
Cr	471	260	126	368	126	71	86	303	184	158	211	114	564	214	614	267	531
Co	9.8	2.59	1.31	41	9.1	5.3	0.98	6.1	1.39	4.42	2.88	0.59	5.9	1.78	6.8	1.4	3.09
Ni	35	16	17	152	9.6	7.5	4.43	15	20	10.6	13.3	60	41	30	37	21	33
Cu	30	7.8	15	75	9.9	10.4	7.2	7.4	10.7	53	6.9	6.2	14.6	10	15	16	13.6
Zn	96	114	557	793	44	33	137	34	16	374	91	40	114	99	136	83	94
Ga	14.1	17	16	20	20	19	18	17	10.2	12.5	17	31	20	17	20	17	19
Ge	1.95	1.56	1.84	1.59	1.67	1.44	1.15	1.75	1.25	1.49	1.82	2.98	1.7	1.74	1.58	1.87	1.68
As	-	-	-	-	-	-	-	-	-	-	-	-	8.5	9.0	9.7	7.2	3.44
Rb	73	130	132	121	114	12.0	12.8	193	126	143	134	323	185	278	194	276	260
Sr	393	221	103	344	557	310	351	389	196	268	231	33	424	100	427	84	184
Y	24	25	14.5	25	24	16	16	21	5.5	5.4	19	38	25	12.6	26	15	18
Zr	111	187	126	207	367	201	259	179	70	161	219	160	235	12.6	296	138	154
Nb	5.6	11.4	10.1	10.5	18	17	18	24	8.3	13.3	18	40	21	21	21	23	19
Mo	2.09	1.8	1.13	2.35	2.9	1.47	0.46	3.66	3.81	1.81	2.91	1.24	3.15	1.98	3.06	1.54	3.02
Sn	1.63	3.54	7.2	1.13	4.84	6.7	6.7	9.3	18	1.2	5.6	28	6.3	2.32	5.6	3.48	3.15
Sb	0.73	1.12	1.07	0.62	2.86	1.18	1.58	5.5	18	2.04	1.16	7.4	0.66	0.88	0.77	0.33	0.42
Ba	10688	1752	2406	1071	908	133	153	552	337	502	627	71	856	252	834	156	432
Hf	2.9	4.78	3.82	5.05	9.05	4.84	5.9	5.25	2.32	5.5	6.25	7.5	6.7	4.68	7.3	5.3	4.9
Ta	0.4	0.98	1.02	0.71	1.46	1.17	1.31	3.22	1.60	2.94	1.55	4.58	1.96	3.87	2.07	3.82	2.91
W	1.88	0.93	1.7	1.29	3.15	1.54	1.62	65	5.4	1.93	5	8.3	2.5	1.55	1.92	2.76	2.02
Pb	26	14	12.1	6.6	19	9.9	13.5	30	123	141	21	89	26	33	38	23	23
Th	5.6	14.0	9.9	5.7	15	6.2	5.1	30	28	42	18	29	26	42	23	37	32
U	1.83	3.9	3.1	2.5	3.77	2.9	1.32	13.1	4.51	6.6	5.7	19	4.81	5.3	5.6	3.66	3.97
La	27	39	19	10.5	62	18	17	3	38	15	31	4.64	50	18	52	24	22
Ce	51	82	49	20	123	46	51	78	79	37	63	5.6	107	47	116	54	49
Pr	5.7	8.4	4.81	2.23	12.4	5.4	6.3	7.9	6.5	3.04	6.4	0.78	12.0	4.72	12.7	5.8	5.6
Nd	22	30	18	9.6	45	22	26	28	20	10.4	22	3.38	45.5	16.3	45.3	19.9	20.8
Sm	5.08	6.1	3.59	2.71	7.8	4.97	5.5	5.03	2.42	1.58	4.1	1.46	8.5	2.86	8.0	3.54	4.24
Eu	1.68	0.93	0.65	1.06	1.74	0.89	1.53	1.04	0.51	0.48	0.76	0.036	1.42	0.41	1.42	0.36	0.64
Gd	5.5	6.0	3.55	4.20	7.0	5.1	4.88	4.66	1.97	1.35	4.14	2.76	6.8	2.46	6.8	2.72	3.85

Table 4 (continuation)

Tb	0.73	0.83	0.46	0.71	0.79	0.69	0.67	0.62	0.18	0.16	0.57	0.61	0.86	0.37	0.90	0.40	0.54
Dy	4.56	4.9	2.76	4.47	4.38	3.76	3.77	3.93	0.98	0.92	3.30	6.3	4.86	2.21	5.1	2.53	3.16
Ho	0.91	0.90	0.51	0.99	0.87	0.61	0.69	0.76	0.22	0.19	0.74	1.80	0.87	0.45	0.94	0.49	0.59
Er	2.42	2.92	1.67	3.00	2.68	1.91	1.97	2.47	0.72	0.59	2.27	7.1	2.67	1.53	2.82	1.62	1.86
Tm	0.33	0.40	0.19	0.40	0.37	0.22	0.27	0.38	0.095	0.095	0.35	1.23	0.41	0.28	0.43	0.30	0.31
Yb	2.42	2.77	1.23	2.79	2.39	1.35	1.70	2.60	0.87	0.81	2.50	9.1	2.46	2.08	2.82	2.22	2.01
Lu	0.40	0.39	0.17	0.41	0.35	0.21	0.22	0.42	0.18	0.16	0.37	1.32	0.36	0.34	0.42	0.36	0.31
Total	175.0	240.0	138.0	98.2	340.0	149.0	164.0	222.0	178.0	88.0	183.0	86.9	313	128	327	153	154
La/Yb	11.2	14.1	15.4	3.8	25.9	13.3	10.0	14.2	46.9	18.5	12.1	0.5	20.3	8.7	18.4	10.8	10.9
Ce/Yb	21.1	29.6	39.8	7.2	53.5	34.1	30	30	90.8	45.7	25.2	0.6	43.5	18.2	41.1	24.3	24.4
Ta/Yb	0.16	0.35	0.83	0.25	0.64	0.87	0.78	1.23	1.84	3.63	0.67	0.5	0.8	1.31	0.72	1.72	1
Nb/Ta	14	11.6	10	14.8	12.3	14.5	13.7	7.5	5.2	8.3	11.6	8.7	10.7	5.4	10.1	6	6.5
Zr/Nb	19.8	16.4	12.5	19.7	20.4	11.8	14.4	7.5	8.4	12.1	11.5	4	11.2	0.6	14.1	6	8.1
Zr/Hf	38.3	39.1	33	41	40.6	41.5	43.9	34.1	30.2	29.3	35	21.3	35.1	0.3	40.5	26	31.4
TE ₁	1.026	1.129	1.231	0.964	1.092	1.160	1.248	1.124	1.207	1.234	1.109	0.755	1.111	1.271	1.165	1.184	1.133
TE ₃	0.904	0.959	0.912	0.956	0.832	0.987	0.946	0.912	0.683	0.828	0.845	0.961	0.924	0.931	0.930	0.951	0.948
TE ₄	0.816	0.883	0.807	0.845	0.865	0.763	0.912	0.876	0.708	0.815	0.915	0.989	0.915	0.950	0.906	0.955	0.929
TE ₁₋₄	0.911	0.985	0.968	0.920	0.923	0.956	1.025	0.965	0.835	0.941	0.950	0.895	0.979	1.040	0.994	1.025	0.999
TE _{3,4}	0.859	0.920	0.858	0.899	0.848	0.868	0.929	0.894	0.695	0.821	0.879	0.975	0.919	0.940	0.918	0.953	0.938

Notes: 1– granodiorite, 2 – granite, 3 – granite-porphyry, 4– diorite porphyry of Istekh ore field; 5 – granodiorite, 6 – andesite, 7 – granite, 8 – granodiorite, 9 – pegmatite, 10 – aplite, 11 – pegmatite, 12 – rhyolite of Kuranakh ore field; 13 – amphibole-biotite granite, 14 – pegmatoid granite, 15 – granodiorite, 16 – leucogranite, 17 – biotite granite of the Elikchan ore field. Calculation of tetrad-affects by [51].