Table S2. Trace element compositions of the Nianzigou granite（μg/g）

No.	N1-03	N1-10	N3-04-2	N1-09	N2-04	N3-01	N3-04-1
Lithology	Biotite Monzogranite	Biotite Monzogranite	Biotite Monzogranite	Biotite Monzogranite	Granite Porphyry	Granite Porphyry	Biotite Monzogranite
Li	34.80	39.54	36.48	45.74	9.62	22.80	51.42
Sc	13.471	5.282	5.318	6.215	2.915	3.183	7.154
V	53.60	32.99	28.19	32.33	10.80	8.44	32.29
Cr	47.74	7.38	6.16	7.41	4.74	9.41	8.56
Mn	954.80	438.60	386.60	476.40	159.58	78.92	576.80
Co	25.517	44.536	31.996	23.560	42.142	30.286	24.320
Ni	2.998	0.776	4.435	2.504	0.124	0.042	0.042
Cu	8.888	6.296	18.800	13.122	15.542	9.494	8.368
Zn	72.036	30.492	39.294	68.436	16.895	11.965	50.742
Ga	20.628	19.674	19.638	19.998	18.594	18.108	19.620
Rb	158.180	194.100	201.600	196.400	269.800	249.400	194.600
Sr	235.600	232.200	233.800	264.000	62.360	63.920	216.800
Y	28.840	20.080	19.286	26.440	10.224	6.226	20.540
Zr	279.400	252.400	192.460	195.740	96.540	77.460	226.600
Nb	23.620	19.130	19.286	23.800	14.048	13.944	21.720
Cs	4.688	4.304	4.488	3.406	2.844	4.528	3.986
Ba	630.400	785.200	841.400	948.800	255.800	232.000	670.600
La	57.920	41.880	42.020	50.580	30.960	27.000	46.040
Ce	116.260	84.280	83.340	102.760	46.080	40.940	89.540
Pr	12.400	8.698	8.912	11.268	4.352	3.658	9.164
Nd	43.680	29.900	31.080	39.600	13.326	10.506	31.320
Sm	7.530	5.018	5.252	6.778	1.999	1.450	5.262
Eu	1.357	1.007	1.048	1.298	0.363	0.289	1.009
Gd	5.852	3.828	4.010	5.214	1.553	1.028	3.984
Tb	0.830	0.544	0.561	0.743	0.227	0.136	0.560
Dy	4.748	3.154	3.174	4.290	1.419	0.818	3.190
Ho	0.980	0.654	0.643	0.886	0.309	0.177	0.663
Er	2.904	1.981	1.890	2.644	1.029	0.613	1.980
Tm	0.418	0.291	0.270	0.381	0.169	0.104	0.293
Yb	2.854	2.046	1.874	2.640	1.333	0.905	2.088
Lu	0.417	0.307	0.279	0.378	0.219	0.161	0.310
Hf	6.170	5.545	4.568	4.598	3.193	2.488	5.182
Ta	1.421	1.487	1.271	1.543	0.889	0.909	1.824
Pb	10.938	11.850	13.893	12.608	10.683	11.608	11.743
Th	28.625	19.560	21.550	11.178	23.183	18.358	16.428
U	5.743	6.408	9.640	3.318	2.578	3.295	5.075
ΣREE	258.150	183.588	184.353	229.46	103.338	87.785	195.403
LREE	239.147	170.783	171.652	212.284	97.08	83.843	182.335
HREE	19.003	12.805	12.701	17.176	6.258	3.942	13.068
(La/Yb)N	14.557	14.683	16.084	13.743	16.660	21.400	15.816
δEu	0.625	0.702	0.698	0.668	0.630	0.724	0.674