

Table S1 LA-ICP-MS zircon U-Pb dating data of the volcanic rocks in the Xiaohongshilazi deposit.

Sample no.	Element content (ppm)		Th/U	Isotope ratio ($\pm 2\sigma$)						Age (Ma $\pm 2\sigma$)					
	²³² Th	²³⁸ U		²⁰⁷ Pb/ ²⁰⁶ Pb		²⁰⁷ Pb/ ²³⁵ U		²⁰⁶ Pb/ ²³⁸ U		²⁰⁷ Pb/ ²⁰⁶ Pb		²⁰⁷ Pb/ ²³⁵ U		²⁰⁶ Pb/ ²³⁸ U	
				Ratios	2σ	Ratios	2σ	Ratios	2σ	Age	2σ	Age	2σ	Age	2σ
X370-9 Andesite															
X370-9-1	130.44	351.19	0.37	0.04909	0.00116	0.24109	0.00624	0.03563	0.00083	152	27	219	5	226	5
X370-9-2	144.64	281.55	0.51	0.05068	0.0013	0.24863	0.00688	0.03559	0.00084	226	29	225	6	225	5
X370-9-3	160	335.59	0.48	0.05033	0.00159	0.247	0.00814	0.0356	0.00085	210	37	224	7	226	5
X370-9-4	114.55	282.25	0.41	0.05159	0.00139	0.25302	0.00726	0.03557	0.00084	267	30	229	6	225	5
X370-9-5	73.58	193.57	0.38	0.05126	0.00158	0.25129	0.00808	0.03555	0.00085	253	35	228	7	225	5
X370-9-6	167.74	492.55	0.34	0.05063	0.00159	0.2486	0.00812	0.03561	0.00085	224	36	225	7	226	5
X370-9-7	186.20	352.92	0.53	0.05067	0.00136	0.24863	0.00709	0.03558	0.00083	226	30	225	6	225	5
X370-9-8	148.37	303.06	0.49	0.05154	0.00138	0.2525	0.00717	0.03552	0.00083	265	30	229	6	225	5
X370-9-9	472.93	896.30	0.53	0.05075	0.00115	0.24641	0.00616	0.03521	0.00081	229	26	224	5	223	5
X370-9-10	164.36	330.51	0.50	0.05113	0.00145	0.25065	0.00747	0.03554	0.00083	247	32	227	6	225	5
X370-9-11	67	182.04	0.37	0.05137	0.00316	0.24981	0.01511	0.03526	0.00098	257	88	226	12	223	6
X370-9-12	224.41	372.12	0.60	0.04886	0.00121	0.2424	0.00643	0.03597	0.00083	141	28	220	5	228	5
X370-9-13	151.03	275.38	0.55	0.05142	0.00154	0.25259	0.00785	0.03562	0.00083	260	34	229	6	226	5
X370-9-14	232.07	460.26	0.50	0.05152	0.00153	0.25042	0.00774	0.03525	0.00082	264	33	227	6	223	5
X370-9-15	82.11	211.34	0.39	0.05193	0.00279	0.25336	0.01346	0.03537	0.00093	282	74	229	11	224	6
X370-9-16	100.28	231.75	0.43	0.0499	0.00292	0.24601	0.01421	0.03574	0.00096	190	84	223	12	226	6
X370-9-17	80.58	231.87	0.35	0.05071	0.00153	0.2473	0.00772	0.03536	0.00082	228	34	224	6	224	5
X370-9-18	189.38	422.15	0.45	0.0508	0.0015	0.24919	0.00764	0.03557	0.00082	232	33	226	6	225	5
X370-9-19	96.75	246.36	0.39	0.05063	0.00138	0.2483	0.00711	0.03557	0.00081	224	30	225	6	225	5
X370-9-20	150.01	180.39	0.83	0.05185	0.00147	0.31626	0.00932	0.04424	0.00101	279	31	279	7	279	6
X370-9-21	98.71	241.58	0.41	0.05043	0.00228	0.24713	0.01111	0.03555	0.00087	215	60	224	9	225	5
7XH-3 Andesite															
7XH-3-1	144.56	268.41	0.54	0.05088	0.00226	0.25032	0.01131	0.0357	0.00095	235	57	227	9	226	6
7XH-3-2	115.07	186.70	0.62	0.05096	0.00261	0.24913	0.01282	0.03547	0.00097	239	69	226	10	225	6
7XH-3-3	157.93	289.59	0.55	0.05299	0.00426	0.25898	0.02041	0.03546	0.00115	328	120	234	16	225	7
7XH-3-4	154.15	304.94	0.51	0.04911	0.00157	0.24133	0.00825	0.03566	0.00089	153	38	220	7	226	6
7XH-3-5	121.82	212.95	0.57	0.05068	0.00285	0.24926	0.01404	0.03568	0.001	226	79	226	11	226	6
7XH-3-6	160.56	324.46	0.49	0.05298	0.00748	0.2615	0.03584	0.03581	0.00162	328	225	236	29	227	10
7XH-3-7	133.12	246.24	0.54	0.05094	0.00681	0.246	0.03198	0.03503	0.00151	238	213	223	26	222	9
7XH-3-8	300.35	507.36	0.59	0.05193	0.00396	0.25382	0.01907	0.03545	0.00111	282	115	230	15	225	7
7XH-3-9	172.16	277.40	0.62	0.05066	0.00265	0.24828	0.01307	0.03555	0.00097	225	72	225	11	225	6

Sample no.	Element content (ppm)		Th/U	Isotope ratio ($\pm 2\sigma$)						Age (Ma $\pm 2\sigma$)					
	²³² Th	²³⁸ U		²⁰⁷ Pb/ ²⁰⁶ Pb		²⁰⁷ Pb/ ²³⁵ U		²⁰⁶ Pb/ ²³⁸ U		²⁰⁷ Pb/ ²⁰⁶ Pb		²⁰⁷ Pb/ ²³⁵ U		²⁰⁶ Pb/ ²³⁸ U	
				Ratios	2 σ	Ratios	2 σ	Ratios	2 σ	Age	2 σ	Age	2 σ	Age	2 σ
7XH-3-10	330.94	403.79	0.82	0.05056	0.00211	0.24845	0.01064	0.03564	0.00093	221	53	225	9	226	6
7XH-3-11	132.99	247.08	0.54	0.05251	0.00291	0.25804	0.01431	0.03564	0.00099	308	76	233	12	226	6
7XH-3-12	300.75	820.59	0.37	0.05201	0.00357	0.2536	0.01723	0.03536	0.00106	286	101	229	14	224	7
7XH-3-13	194.87	363.99	0.54	0.05098	0.00161	0.25046	0.00849	0.03563	0.00089	240	37	227	7	226	6
7XH-3-14	259.40	533	0.49	0.05018	0.00181	0.24892	0.00941	0.03598	0.00091	203	44	226	8	228	6
7XH-3-15	363.93	550.47	0.66	0.05173	0.00287	0.25275	0.01406	0.03543	0.00098	273	77	229	11	224	6
7XH-3-16	111.86	210.48	0.53	0.05201	0.00334	0.25542	0.01627	0.03561	0.00103	286	93	231	13	226	6
7XH-3-17	138.97	277.97	0.50	0.05056	0.0022	0.24816	0.01104	0.03559	0.00092	221	57	225	9	225	6
7XH-3-18	207.97	325.94	0.64	0.0501	0.00226	0.24671	0.01136	0.03571	0.00093	200	60	224	9	226	6
7XH-4 Rhyolite															
7XH-4-1	361.55	618.10	0.58	0.05036	0.00151	0.2472	0.00796	0.0356	0.00087	212	35	224	6	226	5
7XH-4-2	682.80	783.30	0.87	0.0509	0.00184	0.25076	0.00941	0.03573	0.00089	236	44	227	8	226	6
7XH-4-3	493.05	752.35	0.66	0.05326	0.00275	0.26139	0.01352	0.03559	0.00096	340	69	236	11	225	6
7XH-4-4	405.83	695.62	0.58	0.05143	0.00453	0.25311	0.02184	0.03569	0.00118	260	136	229	18	226	7
7XH-4-5	93.24	189.78	0.49	0.05084	0.00289	0.24928	0.01414	0.03555	0.00097	234	81	226	11	225	6
7XH-4-6	254.74	485.68	0.52	0.05133	0.00427	0.24621	0.02008	0.03479	0.00112	256	127	223	16	220	7
7XH-4-7	234.85	468.08	0.50	0.05078	0.00194	0.24929	0.00984	0.0356	0.0009	231	47	226	8	226	6
7XH-4-8	484.72	760.48	0.64	0.05064	0.00167	0.24811	0.0086	0.03553	0.00088	224	39	225	7	225	5
7XH-4-9	463.55	754.34	0.61	0.0514	0.00264	0.25028	0.01292	0.03532	0.00095	259	70	227	10	224	6
7XH-4-10	258.90	489.89	0.53	0.05188	0.00304	0.2545	0.01484	0.03558	0.00099	280	83	230	12	225	6
7XH-4-11	260.42	502.88	0.52	0.05102	0.00172	0.24838	0.00881	0.03531	0.00087	242	40	225	7	224	5
7XH-4-12	185.86	385.79	0.48	0.05209	0.00596	0.25527	0.0284	0.03555	0.00137	289	181	231	23	225	9
7XH-4-13	363.68	587.65	0.62	0.05085	0.00222	0.24408	0.01085	0.03482	0.0009	234	57	222	9	221	6
7XH-4-14	334.95	575.59	0.58	0.05103	0.0021	0.24999	0.01053	0.03553	0.00091	242	52	227	9	225	6
7XH-4-15	230.64	444.16	0.52	0.05249	0.00507	0.25299	0.02384	0.03496	0.00122	307	150	229	19	222	8
7XH-4-16	229.56	463.53	0.50	0.04973	0.0015	0.24418	0.00789	0.03561	0.00087	182	35	222	6	226	5
7XH-4-17	166.04	346.36	0.48	0.05071	0.00226	0.24761	0.01121	0.03542	0.00092	228	58	225	9	224	6
7XH-4-18	232.65	441.48	0.53	0.05528	0.00231	0.26852	0.01145	0.03524	0.00091	424	51	242	9	223	6
7XH-4-19	198	400.94	0.49	0.05045	0.00212	0.24784	0.01064	0.03564	0.00091	216	54	225	9	226	6
7XH-4-20	343.96	565.55	0.61	0.05085	0.00165	0.24836	0.00853	0.03543	0.00087	234	38	225	7	224	5
7XH-4-21	344.36	587.73	0.59	0.05045	0.00291	0.24732	0.01422	0.03556	0.00098	216	83	224	12	225	6
7XH-4-22	166.05	339.94	0.49	0.05035	0.0019	0.24758	0.00965	0.03567	0.00089	211	47	225	8	226	6
7XH-4-23	259.57	480.40	0.54	0.05302	0.00491	0.25869	0.02338	0.03539	0.00121	330	143	234	19	224	8
7XH-4-24	85.85	189.36	0.45	0.05101	0.00205	0.24989	0.01031	0.03554	0.0009	241	51	226	8	225	6

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				Ratios	2σ	Ratios	2σ	Ratios	2σ	Age	2σ	Age	2σ	Age	2σ
7XH-4-25	150.88	317.09	0.48	0.05118	0.00209	0.2512	0.01052	0.0356	0.0009	249	52	228	9	226	6
7XH-8-1 Dacite															
7XH-8-1-1	243.75	510.34	0.48	0.05045	0.00239	0.31307	0.01503	0.04499	0.00119	216	64	277	12	284	7
7XH-8-1-2	113.12	307.79	0.37	0.05161	0.00308	0.31931	0.01901	0.04485	0.00126	268	85	281	15	283	8
7XH-8-1-3	246.72	474.38	0.52	0.05259	0.00322	0.3152	0.01916	0.04345	0.00124	311	87	278	15	274	8
7XH-8-1-4	180.72	393.2	0.46	0.05168	0.00221	0.31901	0.01394	0.04476	0.00116	271	55	281	11	282	7
7XH-8-1-5	222.52	431.39	0.52	0.05183	0.0039	0.31567	0.02342	0.04416	0.00136	278	114	279	18	279	8
7XH-8-1-6	79.96	99.24	0.81	0.05365	0.00639	0.32132	0.03728	0.04343	0.0017	356	189	283	29	274	11
7XH-8-1-7	171.69	389.39	0.44	0.05164	0.00305	0.3101	0.01821	0.04355	0.00122	270	84	274	14	275	8
7XH-8-1-8	200.21	398.96	0.50	0.05112	0.00251	0.31269	0.0155	0.04436	0.00117	246	67	276	12	280	7
7XH-8-1-9	135.82	260.09	0.52	0.05196	0.00444	0.31763	0.02659	0.04433	0.00144	284	132	280	20	280	9
7XH-8-1-10	110.69	273.71	0.40	0.05153	0.00348	0.31247	0.02089	0.04398	0.00128	265	100	276	16	277	8
7XH-8-1-11	45.5	69.49	0.65	0.05331	0.00509	0.32484	0.03041	0.04419	0.00148	342	151	286	23	279	9
7XH-8-1-12	249.51	471	0.53	0.05105	0.00289	0.30916	0.01744	0.04392	0.0012	243	80	274	14	277	7
7XH-8-1-13	165.81	366.2	0.45	0.05211	0.00227	0.31176	0.01378	0.0434	0.00111	290	56	276	11	274	7
7XH-8-1-14	87.38	214.24	0.41	0.05493	0.00333	0.32892	0.01976	0.04344	0.00122	409	85	289	15	274	8
7XH-8-1-15	91.18	152.58	0.60	0.05224	0.00324	0.32001	0.01969	0.04444	0.00124	296	90	282	15	280	8
7XH-8-1-16	125.69	240.08	0.52	0.05164	0.00495	0.3128	0.0293	0.04394	0.00149	270	150	276	23	277	9
7XH-8-1-17	188.84	409.46	0.46	0.05438	0.00389	0.32835	0.0231	0.04381	0.00131	387	104	288	18	276	8
7XH-8-1-18	138.13	326.67	0.42	0.05243	0.00275	0.32064	0.01678	0.04437	0.00118	304	72	282	13	280	7
7XH-8-1-19	151.7	345.24	0.44	0.05132	0.00309	0.31112	0.01858	0.04399	0.00122	255	87	275	14	278	8
7XH-8-1-20	132.84	329.02	0.40	0.05015	0.00369	0.30641	0.0222	0.04434	0.00132	202	111	271	17	280	8
7XH-8-2 Dacite															
7XH-8-2-1	86.84	182.21	0.48	0.0545	0.00711	0.3325	0.0422	0.04425	0.00186	392	208	291	32	279	11
7XH-8-2-2	120.12	288.53	0.42	0.05333	0.0037	0.32542	0.02233	0.04426	0.0013	343	102	286	17	279	8
7XH-8-2-3	47.22	85.28	0.55	0.0526	0.00527	0.31959	0.03136	0.04407	0.00153	312	159	282	24	278	9
7XH-8-2-4	146.44	327.84	0.45	0.05284	0.00289	0.3213	0.01758	0.0441	0.00119	322	76	283	14	278	7
7XH-8-2-5	153.35	346.25	0.44	0.05336	0.0032	0.3236	0.01931	0.04398	0.00123	344	85	285	15	277	8
7XH-8-2-6	104.58	260.38	0.40	0.05301	0.00568	0.32175	0.0336	0.04402	0.00162	329	168	283	26	278	10
7XH-8-2-7	230.69	415.42	0.56	0.05186	0.00504	0.31359	0.02977	0.04386	0.00152	279	151	277	23	277	9
7XH-8-2-8	63.7	173.84	0.37	0.05198	0.00558	0.31535	0.03302	0.04401	0.00161	285	169	278	25	278	10
7XH-8-2-9	125.87	318.06	0.40	0.05213	0.00267	0.31923	0.01641	0.04441	0.00118	291	70	281	13	280	7
7XH-8-2-10	94.64	208.05	0.45	0.0522	0.00592	0.31742	0.03508	0.0441	0.00168	294	180	280	27	278	10
7XH-8-2-11	152.35	341.34	0.45	0.05374	0.00426	0.32424	0.02519	0.04376	0.00137	360	119	285	19	276	8

Sample no.	Element content (ppm)		Th/U	Isotope ratio ($\pm 2\sigma$)						Age (Ma $\pm 2\sigma$)					
	²³² Th	²³⁸ U		²⁰⁷ Pb/ ²⁰⁶ Pb		²⁰⁷ Pb/ ²³⁵ U		²⁰⁶ Pb/ ²³⁸ U		²⁰⁷ Pb/ ²⁰⁶ Pb		²⁰⁷ Pb/ ²³⁵ U		²⁰⁶ Pb/ ²³⁸ U	
				Ratios	2σ	Ratios	2σ	Ratios	2σ	Age	2σ	Age	2σ	Age	2σ
7XH-8-2-12	82.32	224.38	0.37	0.05181	0.00346	0.31667	0.02092	0.04433	0.00128	277	99	279	16	280	8
7XH-8-2-13	124.37	173.91	0.72	0.05198	0.0077	0.32027	0.04601	0.04469	0.00206	285	238	282	35	282	13
7XH-8-2-14	156.94	353.27	0.44	0.05215	0.00542	0.31732	0.03214	0.04414	0.0016	292	163	280	25	278	10
7XH-8-2-15	141.06	283.43	0.50	0.05276	0.0047	0.31416	0.02738	0.04319	0.00144	318	137	277	21	273	9
7XH-8-2-16	76.59	185.11	0.41	0.05085	0.00397	0.31116	0.02389	0.04438	0.00137	234	119	275	19	280	8
7XH-8-2-17	114.51	290.46	0.39	0.05194	0.00506	0.31569	0.03002	0.04409	0.00154	283	151	279	23	278	10
7XH-8-2-18	121.4	281.24	0.43	0.05203	0.00737	0.31763	0.04365	0.04428	0.00198	287	227	280	34	279	12
7XH-8-2-19	133.41	255.34	0.52	0.05267	0.00378	0.3215	0.02266	0.04427	0.00133	315	106	283	17	279	8
7XH-8-2-20	225.37	355.7	0.63	0.05031	0.00431	0.29974	0.02513	0.04321	0.0014	209	131	266	20	273	9
7XH-8-2-21	175.78	385.03	0.46	0.05236	0.00351	0.31618	0.02088	0.04379	0.00128	301	98	279	16	276	8
7XH-8-2-22	116.22	320.58	0.36	0.05134	0.00321	0.31582	0.01951	0.04461	0.00127	256	90	279	15	281	8
7XH-8-2-23	155.75	351.23	0.44	0.05188	0.00259	0.31663	0.01578	0.04426	0.00117	280	67	279	12	279	7
7XH-8-2-24	137.31	256.79	0.53	0.05193	0.00221	0.31912	0.01376	0.04456	0.00114	282	54	281	11	281	7

Table S2 Whole-rock major and trace element data of the rhyolite and dacite in the Xiaohongsilazi deposit.

Sample no.	7XH-4-1	7XH-4-2	7XH-4-3	7XH-4-4	7XH-4-5	7XH-8-1	7XH-8-2	7XH-8-3	7XH-8-4	7XH-8-5
	Rhyolite					Dacite				
Major element (wt. %)										
SiO ₂	73.7	74.82	75.13	74.56	76.44	65.02	63.57	64.08	64.64	62.54
TiO ₂	0.2	0.17	0.17	0.20	0.12	0.58	0.59	0.58	0.56	0.68
Al ₂ O ₃	13.04	12.78	13.09	13.02	12.76	15.67	15.45	15.71	15.71	15.70
TFe ₂ O ₃	2.89	2.43	1.54	2.07	1.62	7.99	8.22	8.72	7.97	9.16
MnO	0.18	0.11	0.06	0.08	0.05	0.68	0.61	0.76	0.68	0.78
MgO	0.68	0.75	0.80	0.87	0.69	0.78	0.77	0.79	0.76	0.81
CaO	0.41	0.39	0.42	0.47	0.22	0.90	1.25	0.82	1.01	1.04
Na ₂ O	1.72	1.69	1.65	1.7	1.84	2.75	2.42	2.53	2.75	2.82
K ₂ O	5.93	5.82	5.81	5.6	5.49	2.63	2.81	2.74	2.62	2.63
P ₂ O ₅	0.06	0.05	0.05	0.05	0.04	0.23	0.21	0.23	0.23	0.24
LOI	1.38	1.21	1.46	1.45	1.13	2.75	3.23	2.80	2.78	3.12
Total	100.18	100.2	100.18	100.07	100.39	99.97	99.13	99.75	99.71	99.51
Na ₂ O+K ₂ O	7.64	7.5	7.46	7.31	7.33	5.38	5.23	5.27	5.37	5.45
Na ₂ O/K ₂ O	0.29	0.29	0.28	0.30	0.34	1.05	0.86	0.92	1.05	1.07

Sample no.	7XH-4-1	7XH-4-2	7XH-4-3	7XH-4-4	7XH-4-5	7XH-8-1	7XH-8-2	7XH-8-3	7XH-8-4	7XH-8-5
	Rhyolite					Dacite				
A/CNK	1.3	1.3	1.34	1.34	1.36	1.74	1.66	1.82	1.71	1.67
A/NK	1.41	1.41	1.45	1.47	1.42	2.12	2.20	2.20	2.13	2.10
Mg#	31.62	37.86	50.51	45.44	45.74	16.12	15.61	15.17	15.89	14.88
σ	1.90	1.77	1.73	1.69	1.61	1.31	1.33	1.32	1.33	1.52
<i>Trace element (ppm)</i>										
Li	14.2	12.7	12.2	14.1	9.08	16.7	16.5	17.3	16.5	17.3
Be	2.75	2.67	2.86	2.75	2.85	1.69	1.90	1.65	1.65	1.64
Sc	6.95	6.70	6.97	6.68	6.55	8.38	8.31	8.43	8.61	8.79
V	4.58	4.12	7.96	11.1	2.07	9.29	10.2	10.3	9.53	11.2
Cr	30.6	30.4	22.3	28.9	49.4	17.7	11.2	15.8	11.8	12.4
Co	3.44	3.19	2.05	2.85	2.59	5.86	11.3	3.56	5.25	4.56
Ni	14.4	8.28	6.02	6.98	15.6	5.92	4.65	3.34	3.77	4.66
Cu	17.2	17.2	6.44	7.20	10.1	10.5	13	11.8	11	16
Zn	998	172	88.1	110	64.6	3594	5202	1696	3691	5599
Ga	20	19.8	20.8	20.2	19.8	21.2	20.8	21.5	21.1	22
Ge	2.26	1.96	1.57	1.75	1.61	4.56	4.79	5	4.76	5.42
As	36.9	42.6	35.1	15.9	9.65	7.42	14.8	8.23	7.69	16.1
Rb	168	157	144	148	130	94.3	101	101	94.3	97.5
Sr	124	147	182	184	185	84.6	93.3	83.4	83.7	97.2
Y	39.5	39.3	41.7	39.5	40.9	18.7	19.1	19.1	18	19.6
Zr	360	354	404	373	383	154	152	160	159	156
Nb	12.6	12.1	12.9	12.4	12.7	9.52	9.29	9.57	9.59	9.20
Mo	1.26	2.44	0.62	0.66	1.86	1.55	1.36	1.76	1.52	1.71
Ag	1.36	1.33	1.25	0.54	0.42	1.87	4.23	1.89	1.87	3.33
Cd	8.25	1.28	0.61	0.76	0.45	32.8	52.4	14.8	32.5	48.4
In	0.22	0.22	0.15	0.15	0.13	0.19	0.19	0.12	0.18	0.25
Sn	6.93	6.32	6.22	5.99	6.04	8.96	14.6	8.80	8.92	11.8
Sb	5.28	5.17	4.08	2.19	1.36	6.85	10.9	6.47	6.77	8.92
Cs	3.36	3.04	3.40	4.07	2.65	8.71	8.40	9.58	8.61	9.32
Ba	422	394	367	375	353	232	280	240	230	222
La	31.7	25.6	27.5	24.2	27.6	34.2	26.1	34.4	33.6	43.6
Ce	74.6	63.9	62.9	62.3	58.1	85.8	66.3	86.7	85.2	108
Pr	9.33	7.99	7.85	7.65	6.90	10.7	8.54	10.9	10.7	13.3
Nd	35	30.3	29.5	29.1	25.9	42.2	34.7	42.4	42.8	51
Sm	6.74	6.01	6.09	5.93	5.45	8.19	7.03	8.15	8.21	9.40

Sample no.	7XH-4-1	7XH-4-2	7XH-4-3	7XH-4-4	7XH-4-5	7XH-8-1	7XH-8-2	7XH-8-3	7XH-8-4	7XH-8-5
	Rhyolite					Dacite				
Eu	0.27	0.15	0.12	0.18	0.06	1.41	1.22	1.42	1.42	1.73
Gd	5.44	5.03	5.23	4.93	4.77	5.27	5.08	5.51	5.41	6.28
Tb	0.97	0.93	0.98	0.92	0.93	0.75	0.72	0.77	0.73	0.85
Dy	6.35	6.26	6.64	6.3	6.43	3.58	3.83	3.83	3.57	4.04
Ho	1.36	1.37	1.45	1.37	1.39	0.68	0.74	0.71	0.67	0.74
Er	3.98	3.95	4.16	3.96	4.08	1.90	2.04	2.01	1.88	2.08
Tm	0.61	0.61	0.64	0.61	0.63	0.26	0.29	0.28	0.25	0.28
Yb	4.15	4.11	4.36	4.14	4.24	1.74	1.95	1.84	1.71	1.89
Lu	0.63	0.63	0.66	0.63	0.65	0.27	0.3	0.29	0.26	0.29
Hf	10.5	10.4	11.3	10.9	11	5	4.93	5.04	4.95	4.86
Ta	1.17	1.17	1.20	1.18	1.20	0.82	0.83	0.81	0.82	0.77
Pb	239	101	88.5	76.5	31.8	665	1537	665	637	1072
Th	22	22.3	23.5	22.4	23.5	11.1	11.2	11.2	11.3	10.3
U	6.16	5.98	6.55	6	6.06	3.76	3.79	3.7	3.68	3.47
ΣREE	181.12	156.83	158.08	152.22	147.12	196.94	158.83	199.20	196.41	243.48
LREE	157.64	133.95	133.96	129.36	124.01	182.50	143.89	183.97	181.93	227.03
HREE	23.48	22.88	24.12	22.86	23.11	14.44	14.94	15.23	14.48	16.45
LREE/HREE	6.71	5.85	5.55	5.66	5.37	12.64	9.63	12.08	12.56	13.8
δEu	0.13	0.08	0.06	0.10	0.04	0.62	0.6	0.61	0.61	0.65
δCe	1.03	1.07	1.02	1.10	0.99	1.07	1.06	1.07	1.08	1.07
(La/Yb) _N	5.15	4.2	4.25	3.94	4.39	13.25	9.02	12.6	13.25	15.55
Th/Nb	1.75	1.84	1.82	1.81	1.85	1.17	1.21	1.17	1.18	1.12

LOI = loss on ignition; Mg# = $100 \times (\text{MgO}/40.31) / (\text{MgO}/40.31 + 0.8998 \times \text{Fe}_2\text{O}_3\text{T}/71.84)$; $\sigma = ((\text{K}_2\text{O} + \text{Na}_2\text{O}) \times (\text{K}_2\text{O} + \text{Na}_2\text{O})) / (\text{SiO}_2 - 43)$; $\delta\text{Eu} = 2 \times w(\text{Eu})_{\text{N}} / [w(\text{Sm})_{\text{N}} + w(\text{Gd})_{\text{N}}] = 2 \times (\text{Eu}/0.0735) / ((\text{Sm}/0.195) + (\text{Gd}/0.259))$; $\delta\text{Ce} = 2 \times w(\text{Ce})_{\text{N}} / [w(\text{La})_{\text{N}} + w(\text{Pr})_{\text{N}}] = 2 \times (\text{Ce}/0.808) / ((\text{La}/0.310) + (\text{Pr}/0.122))$; $(\text{La}/\text{Yb})_{\text{N}} = (\text{La}/0.31) / (\text{Yb}/0.209)$.