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Data Repository

Tables DR1–DR10

Table DR1. SIMS zircon U-Pb isotopes data for Mesozoic trachytes and rhyolites from the Fanchang basin in the Middle-Lower Yangtze Valley.

Table DR2. LA-ICP-MS zircon U-Pb isotopes data for Mesozoic basalts from the Fanchang basin in the Middle-Lower Yangtze Valley.

Table DR3. Major and trace elements data for Mesozoic bimodal volcanics from the Fanchang basin in the Middle-Lower Yangtze Valleya.

Table DR4. Whole-rock Rb-Sr, Sm-Nd and Lu-Hf isotopes data for Mesozoic bimodal volcanics from the Fanchang basin in the Middle-Lower Yangtze Valleya.

Table DR5. SIMS zircon O isotope data for Mesozoic trachytes and rhyolite from the Fanchang basin in the Middle-Lower Yangtze Valley.

Table DR6. LA zircon Lu-Hf isotopes data for Mesozoic trachytes and rhyolite from the Fanchang basin in the Middle-Lower Yangtze Valley.

Table DR7. Electron microprobe data for plagiolcase phenocrysts in mafic volcanics from the Fanchang basin in the Middle and Lower Yangtze valleya.

Table DR8. Published age data for Mesozoic bimodal volcanics from the Fanchang basin in the Middle-Lower Yangtze Valley.

Table DR9. Major-trace elements and Sr-Nd isotopes data for Mesozoic bimodal volcanics from the Middle-Lower Yangtze Valleya.

Table DR10. U-Pb-Hf-O isotopic data for the secondary standards that analyzed along with Mesozoic bimodal volcanics from the Middle-Lower Yangtze Valley.

Link location: http://www.geosociety.org/datarepository/2018/2018181_Tables.xls

FIGURES DR1–DR

Figure DR1. The TAS diagram of total alkali versus SiO_2 contents for Early Cretaceous volcanics in the Middle-Lower Yangtze Valley. Also plotted are the data of volcanics from typical continental arcs from the Georoc database (http://georoc.mpch-mainz.gwdg.de, accessed in February 2014). The compositional range of post-collisional volcanics from Tibet is after Chung et al. (2005). Data for the MLYV volcanics are after Chen and Zhao (2017).

Figure DR2. Representative microphotographs for the Fanchang bimodal volcanics in the Middle-Lower Yangtze Valley. Pl—plagioclase; Kf—K-feldspar, Apa—apatite.

Figure DR3. Covariation diagrams between fluid-mobile and fluid-immobile elements for the Fanchang bimodal volcanics. The literature data on the Fanchang bimodal volcanics are also presented for comparison.

Figure DR4. Representative zircon CL images for the Fanchang bimodal volcanics in the Middle-Lower Yangtze Valley. Pink circles denote the analytical spots together with zircon U-Pb ages, $\delta^{18}O$ and $\varepsilon_{Hf}(t)$ values. Red numbers like "132/6.8/-3.3" denote the zircon U-Pb age (Ma), $\delta^{18}O$ (‰) and $\varepsilon_{Hf}(t)$ values successively, and "_"means the lack of corresponding data.

Figure DR5. Diagram of Na_2O versus K_2O contents for the Fanchang bimodal volcanics in the Middle-Lower Yangtze Valley. The literature data for the Fanchang volcanics are also present for comparison.

Figure DR6. Representative BSE images together with analytical spots and major element compositions of investigated plagioclase phenocrysts from the Fanchang mafic volcanics in the Middle-Lower Yangtze Valley. The green points denote the analytical spots by EMPA. A, B denotes that the analysis start from A and end with B.

Figure DR7. Diagrams of trace element abundances versus trace element ratios for the Fanchang bimodal rocks. The literature data for the Fanchang volcanics are presented for comparison. Symbol meanings are the same as those in Fig. DR5, in which filled and open symbols denote the data from this study and the literature, respectively.

Figure DR8. Diagrams of SiO_2 versus $(^{87}Sr/^{86}Sr)_i$ and $\varepsilon_{Nd}(t)$ values for the Fanchang bimodal volcanics in the Middle-Lower Yangtze Valley. The literature data for the Fanchang volcanics are also presented for comparison. Symbol meanings are the same as those in Fig. DR5, in which filled and open symbols denote the data from this study and the literature, respectively.

Figure DR9. Diagram of Th versus Hf abundances for the Fanchang mafic volcanics in the Middle-Lower Yangtze Valley. The literature data for the Fanchang mafic volcanics are also presented for comparison. Symbol meanings are the same as those in Fig. DR5, in which filled and open symbols denote the data from this study and the literature, respectively.

Table DR1. SIMS zircon U-Pb isotopes data for Mesozoic trachytes and rhyolites from the Fanchang basin in the Middle-Lower Yangtze Valley

Spot	Th (ppm)	U (ppm)	Th/U	f_{206}[a] (%)	Isotope ratio $^{207}Pb/^{206}Pb$	1σ (%)	$^{206}Pb/^{238}Pb$	1σ	Age 207-corr age (Ma)	1σ
Trachyte 13FC04										
1	74	87	0.8	0.96	0.04868	6.88	128	2	128	2
4	390	265	1.5	1.98	0.03553	9.20	131	2	133	2
11	94	103	0.9	2.17	0.03390	13.63	128	2	130	2
12	122	110	1.1	1.10	0.04804	3.03	125	2	126	2
13	89	93	1.0	2.55	0.02871	21.51	118	2	121	2
14	393	279	1.4	1.90	0.03589	6.99	124	2	126	2
15	219	191	1.1	5.21	0.03930	12.96	122	2	123	2
17	280	225	1.2	17.05	0.05201	36.94	129	4	128	5
23	359	402	0.9	1.41	0.05451	1.48	128	2	127	2
27	110	104	1.1	2.43	0.03961	12.46	123	2	124	2
28	133	99	1.3	2.23	0.03474	12.93	120	2	122	2
Trachyte 13FC07										
1	149	111	1.3	5.09	0.03089	36.75	120	2	123	2
2	38	54	0.7	3.72	0.03466	42.25	120	3	122	3
3	131	155	0.8	2.24	0.03443	19.07	116	2	118	2
4	695	558	1.2	2.15	0.03408	9.54	125	2	127	2
5	186	127	1.5	4.58	0.02679	36.95	121	3	125	2
6	203	134	1.5	1.43	0.04489	11.87	125	2	125	2
10	234	182	1.3	5.42	0.02917	31.93	120	2	123	2
11	891	554	1.6	3.41	0.03574	13.85	122	2	124	2
13	45	55	0.8	2.89	0.05673	22.46	127	4	125	3
16	177	129	1.4	2.89	0.04367	19.06	122	2	123	2
18	1310	948	1.4	4.05	0.04115	11.66	127	2	129	2
19	555	384	1.4	2.51	0.03749	11.64	123	2	125	2
20	586	331	1.8	2.49	0.03191	13.97	127	2	129	2
24	109	103	1.1	3.09	0.04018	24.51	125	3	127	3
25	94	100	0.9	2.13	0.03708	20.63	119	2	120	2
26	2453	1802	1.4	1.45	0.04333	4.48	128	2	129	2
27	684	551	1.2	1.31	0.04979	2.43	124	2	124	2
28	200	222	0.9	0.91	0.04696	7.52	125	2	125	2
29	1466	1450	1.0	0.75	0.05093	1.40	134	2	133	2
33	231	179	1.3	2.03	0.03718	13.33	124	2	126	2
34	372	294	1.3	1.31	0.05286	3.20	126	2	126	2
Trachyte 13FC09										
1	92	105	0.9	1.41	0.05278	3.03	127	2	126	2
3	152	108	1.4	2.57	0.02679	19.99	125	2	128	2
4	110	87	1.3	2.38	0.03176	16.42	121	2	124	2
5	136	176	0.8	1.10	0.04869	2.52	126	2	126	2
6	713	474	1.5	9.85	0.04154	13.21	126	2	127	3
7	148	137	1.1	2.61	0.03514	13.39	113	2	115	2
8	165	125	1.3	2.05	0.03214	12.87	125	2	128	2
12	72	70	1.0	2.20	0.03374	16.14	123	2	126	2
13	455	433	1.1	1.99	0.03329	6.42	123	2	125	2
15	152	117	1.3	1.84	0.04984	2.93	124	2	124	2
16	487	511	1.0	0.84	0.04960	1.67	125	2	124	2
18	95	98	1.0	2.24	0.03287	14.11	124	2	127	2
19	62	67	0.9	1.41	0.04576	11.55	122	2	122	2
20	155	145	1.1	2.80	0.02642	16.17	123	2	127	2
21	499	350	1.4	2.47	0.03044	8.50	125	2	128	2
25	76	83	0.9	1.11	0.04855	8.14	121	2	121	2
26	119	110	1.1	0.85	0.04696	3.04	126	2	126	2
Rhyolite 13FC10										
1	596	773	0.8	0.32	0.04812	1.14	126	2	126	2
2	134	134	1.0	0.42	0.04785	2.69	126	2	127	2
3	1512	1196	1.3	0.41	0.04837	1.53	130	2	130	2
4	163	287	0.6	0.41	0.05002	2.02	129	2	129	2
6	903	1082	0.8	0.13	0.04860	0.95	128	2	128	2
8	150	106	1.4	0.11	0.05237	3.39	129	2	128	2
9	1620	1491	1.1	0.06	0.04876	0.79	131	2	131	2
10	354	286	1.2	0.16	0.04865	1.82	127	2	127	2
12	133	119	1.1	0.65	0.04652	2.85	126	2	126	2
14	767	659	1.2	0.24	0.04838	1.58	127	2	127	2
15	429	450	1.0	0.35	0.04909	1.73	135	2	135	2
17	828	766	1.1	0.11	0.04856	1.70	129	2	129	2
19	509	455	1.1	0.23	0.04869	1.95	126	2	126	2
21	300	512	0.6	0.13	0.04812	1.91	128	2	128	2
22	234	224	1.0	0.00	0.04806	2.05	127	2	127	2
24	953	869	1.1	0.16	0.04875	1.19	127	2	127	2
25	727	885	0.8	0.22	0.04895	1.33	128	2	128	2
30	170	115	1.5	0.29	0.04936	2.86	124	2	124	2

[a] $f_{206}= (^{204}Pb/^{206}Pb)_m*(^{206}Pb/^{204}Pb)_c$, with $(^{204}Pb/^{206}Pb)_m$ the measured $^{204}Pb/^{206}Pb$ ratio corrected for background, and $(^{206}Pb/^{204}Pb)_c$ the common Pb ratio of the analyzed area, calculated from its U-Pb age.

Table DR2. LA-ICP-MS zircon U-Pb isotopes data for Mesozoic basalts from the Fanchang basin in the Middle-Lower Yangtze Valley

Spot	Element (ppm)				Atomic ratios						Apparent ages (Ma)			
	U	Th	Pb	Th/U	$^{207}Pb/^{206}Pb$	1σ	$^{207}Pb/^{235}U$	1σ	$^{206}Pb/^{238}U$	1σ	$^{207}Pb/^{235}U$	1σ	$^{206}Pb/^{238}U$	1σ
13FC12-04	84	65	2.57	0.77	0.0524	0.0046	0.1527	0.0127	0.0216	0.0005	144	11	138	3
13FC12-07	1007	816	29.81	0.81	0.0467	0.0031	0.1271	0.0081	0.0196	0.0004	121	7	125	2
13FC13-02	237	316	8.00	1.33	0.0500	0.0028	0.1353	0.0075	0.0197	0.0003	129	7	126	2
13FC13-03	550	493	17.40	0.90	0.0480	0.0020	0.1377	0.0055	0.0209	0.0002	131	5	134	1
13FC13-04	249	377	10.84	1.51	0.0496	0.0031	0.1506	0.0102	0.0219	0.0005	142	9	139	3
13FC13-05	1535	1155	42.21	0.75	0.0491	0.0013	0.1329	0.0039	0.0194	0.0002	127	3	124	1
13FC15A-05	539	650	16.74	1.21	0.0502	0.0021	0.1369	0.0055	0.0199	0.0003	130	5	127	2
13FC15B-01	404	692	14.66	1.71	0.0487	0.0023	0.1319	0.0060	0.0197	0.0002	126	5	125	2
13FC15B-03	81	75	2.54	0.93	0.0536	0.0059	0.1507	0.0155	0.0211	0.0006	143	14	134	4
13FC15B-04	277	618	11.11	2.23	0.0491	0.0033	0.1317	0.0090	0.0194	0.0003	126	8	124	2
13FC15B-07	981	861	29.67	0.88	0.0500	0.0016	0.1434	0.0045	0.0207	0.0002	136	4	132	1
13FC15B-10	564	1203	22.61	2.13	0.0491	0.0019	0.1340	0.0052	0.0197	0.0002	128	5	126	1
13FC16-03	1865	1748	58.22	0.94	0.0478	0.0012	0.1372	0.0034	0.0208	0.0002	131	3	132	1
13FC16-04	1884	2371	59.73	1.26	0.0470	0.0013	0.1257	0.0033	0.0194	0.0002	120	3	124	1
13FC17-03	216	301	8.05	1.39	0.0541	0.0045	0.1581	0.0121	0.0214	0.0005	149	11	137	3

Table DR3. Major and trace elements data for Mesozoic bimodal volcanics from the Fanchang basin in the Middle-Lower Yangtze Valley[a]

Sample	13FC04	13FC05	13FC06	13FC07	13FC08	13FC09	13FC10	13FC11	13FC12	13FC13	13FC14	13FC15A	13FC15B	13FC16	13FC17	13FC08R	Standard	
Formation	Zhongfencun	Zhongfencun	Zhongfencun	Zhongfencun	Zhongfencun	Zhongfencun	Zhongfencun	Zhongfencun	Kedoushan	Kedoushan	Kedoushan	Kedoushan	Kedoushan	Kedoushan	Kedoushan			
Major element (%)																	Measured	Ref.
SiO_2	65.75	65.63	66.24	69.47	66.52	67.99	77.80	81.66	50.64	51.56	51.68	51.30	51.41	51.52	51.87	64.16	60.41	60.62
Al_2O_3	17.57	17.94	16.97	16.26	17.52	16.66	14.48	13.00	19.46	18.18	18.46	18.11	18.11	17.92	18.05	17.11	16.07	16.17
$Fe_2O_3^T$	5.06	5.18	5.04	4.68	4.86	4.83	1.52	1.12	9.99	10.93	10.49	10.98	10.75	11.20	11.21	4.91	4.84	4.90
CaO	2.10	1.96	1.96	1.30	1.56	1.57	0.06	0.16	11.19	10.48	10.97	10.14	10.42	10.17	10.39	1.70	5.35	5.20
MgO	0.70	0.72	0.75	0.84	0.65	0.92	0.26	0.52	4.37	3.75	4.03	4.18	4.03	4.21	4.21	0.67	1.68	1.72
Na_2O	4.27	4.45	4.24	3.32	3.90	3.34	1.29	0.85	3.81	4.21	4.41	4.17	4.22	4.33	4.42	3.68	3.88	3.86
K_2O	5.15	5.43	5.36	5.78	6.15	6.15	7.49	5.64	1.05	1.30	1.19	1.28	1.26	1.22	1.13	5.84	1.84	1.89
TiO_2	0.85	0.89	0.84	0.81	0.84	0.83	0.13	0.12	1.55	1.82	1.80	1.86	1.84	1.78	1.80	0.84	0.50	0.52
MnO	0.09	0.07	0.07	0.09	0.05	0.08	0.07	0.05	0.18	0.16	0.23	0.15	0.16	0.19	0.16	0.09	0.08	0.08
P_2O_5	0.40	0.41	0.42	0.37	0.38	0.45	0.01	0.01	0.54	0.61	0.61	0.60	0.60	0.60	0.61	0.39	0.08	0.24
LOI	2.04	1.81	1.67	1.85	1.69	2.26	2.17	2.68	2.59	2.91	3.74	3.08	2.95	3.07	3.54	1.55		
Total	99.94	99.01	99.60	98.86	99.14	99.34	99.13	99.59	99.66	99.79	99.78	100.17	100.02	99.66	99.64	99.25	99.59	
Mg#[b]	21.48	21.59	22.79	26.23	21.00	27.47	24.95	48.03	46.44	40.46	43.22	42.98	42.63	42.69	42.67	21.15		
K_2O+Na_2O	9.42	9.88	9.60	9.10	10.05	9.50	8.78	6.50	4.86	5.51	5.61	5.45	5.49	5.55	5.54	9.53		
K_2O/Na_2O	1.21	1.22	1.26	1.74	1.58	1.84	5.82	6.63	0.28	0.31	0.27	0.31	0.30	0.28	0.25	1.59		
A/CNK[c]	1.19	1.18	1.14	1.24	1.19	1.21	1.41	1.69	1.01	0.93	0.91	0.95	0.93	0.93	0.93	1.21		
Trace element (ppm)																		
Cs	7.25	7.75	7.14	6.61	6.27	6.23	5.37	4.47	55.40	43.20	64.30	67.60	74.80	58.50	76.20	7.54	1.57	2.3
Rb	168	180	181	187	203	204	311	216	7	12	7	13	12	9	9	180	37	38
Ba	1160	1170	1190	1255	1200	1170	249	482	815	793	796	828	815	2260	822	1205	985	1020
Th	16.65	17.60	16.45	16.20	17.10	15.85	31.60	28.80	4.84	6.15	6.03	6.16	5.95	5.76	5.96	0.49	2.47	2.6
U	2.67	2.80	2.63	2.37	2.63	3.01	4.92	4.44	1.35	1.70	1.93	1.69	1.67	1.68	1.74	2.54	0.82	0.9
Nb	21.90	22.70	21.80	20.40	22.00	20.80	38.00	34.30	10.90	12.60	12.30	12.80	12.80	11.90	12.70	22.30	5.2	6.8
Ta	1.20	1.20	1.10	1.10	1.20	1.10	2.50	2.20	0.40	0.60	0.60	0.70	0.70	0.70	0.70	1.30	0.20	0.40
K	41889	43813	43572	46552	49749	49597	60275	45401	8467	10454	9508	10346	10177	9798	8984	47401		
La	67.0	65.8	65.3	62.4	64.5	62.8	47.3	39.3	34.6	38.4	38.1	37.5	36.8	36.1	38.2	66.0	21.1	22.0
Ce	130.5	130.0	129.5	121.5	130.0	125.0	86.0	67.3	73.2	81.9	80.0	79.2	78.4	76.5	79.4	129.5	39.7	40.0
Pb	30.00	21.00	20.00	27.00	26.00	26.00	18.00	8.00	8.00	9.00	16.00	14.00	8.00	9.00	11.30	27.00	9.00	
Pr	14.50	14.35	14.25	13.15	13.65	13.75	9.45	8.29	8.78	9.76	9.58	9.27	9.54	9.25	9.70	14.40	4.50	4.90
Sr	606	598	602	312	396	294	17	30	1140	977	978	983	979	954	969	415	827	790
P	1698	1760	1814	1583	1626	1910	54	45	2302	2590	2567	2544	2522	2535	2557	1650		
Nd	52.9	52.0	51.4	47.6	48.3	50.0	29.3	27.3	35.1	38.8	38.5	38.4	39.5	37.6	39.9	52.6	17.6	19.0
Zr	383	403	371	361	380	367	154	131	162	192	187	195	196	185	192	391	90	99
Hf	8.80	9.30	8.90	8.40	9.20	8.20	6.40	5.70	3.90	4.60	4.50	4.60	4.50	4.60	4.40	8.70	2.50	2.90
Sm	9.26	8.91	9.08	8.14	8.42	8.71	5.78	5.20	6.73	7.68	7.58	7.85	8.04	7.66	7.96	9.10	3.33	3.40
Eu	2.16	2.05	2.04	1.90	1.99	2.03	0.40	0.54	2.06	2.26	2.19	2.16	2.08	2.05	2.29	2.09	0.98	1.02
Ti	4959	5179	4957	4695	4920	4815	742	680	9014	10579	10359	10803	10681	10300	10353	4916		
Gd	7.06	6.68	6.72	6.26	6.57	6.90	4.52	4.12	5.83	6.57	6.37	7.03	6.99	6.63	6.97	6.86	2.23	2.70
Tb	1.06	1.10	1.01	0.98	0.99	1.01	0.84	0.82	0.92	0.96	0.99	0.96	0.93	0.95	0.95	1.09	0.30	0.41
Dy	6.14	6.02	5.84	5.62	5.72	5.84	5.50	5.53	5.04	5.50	5.45	5.51	5.34	5.22	5.35	5.80	1.68	1.85
Y	33.70	33.20	30.90	30.40	31.60	32.00	37.00	36.90	25.60	28.40	29.00	29.30	29.40	28.60	29.50	32.60	8.20	9.30
Ho	1.18	1.23	1.18	1.08	1.21	1.14	1.22	1.30	0.98	1.10	1.12	1.11	1.09	1.08	1.11	1.10	0.31	0.34
Er	3.44	3.26	3.40	3.08	3.24	3.36	4.08	3.98	2.78	3.07	2.94	3.18	2.96	2.96	3.22	3.55	0.75	0.85
Tm	0.57	0.59	0.53	0.48	0.49	0.48	0.66	0.70	0.40	0.39	0.45	0.45	0.46	0.40	0.47	0.52	0.10	0.15
Yb	3.61	3.50	3.21	3.32	3.44	3.23	4.98	4.89	2.51	2.93	2.94	2.91	2.96	2.99	2.90	3.57	0.72	0.89
Lu	0.54	0.56	0.48	0.49	0.55	0.54	0.76	0.70	0.37	0.40	0.39	0.42	0.43	0.39	0.40	0.52	0.09	0.12
Ga	19.3	22.6	19.8	22.3	16.8	17.2	17.7	16.4	15.8	20.3	18.5	28.0	18.5	19.5	20.7	19.7	18.0	18.1
Co	8.1	7.5	7.4	6.2	7.8	<0.5	0.7	30.0	31.8	33.1	33.2	32.3	30.9	34.5	13.2	7.9	12.5	
Cr	10.0	10.0	10.0	50.0	10.0	10.0	<10	<10	20.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	30.0	32.0
Ni	8.0	11.0	107.0	10.0	10.0	7.0	9.0	22.0	17.0	12.0	<5	<5	<5	<5	17.0	10.0	21.0	
Zn	110.0	100.0	89.0	87.0	93.0	37.0	88.0	96.0	125.0	109.0	208.0	229.0	116.0	113.0	71.0	92.0	79.0	
V	62	73	65	42	53	43	5	<5	224	263	251	267	264	253	263	55	95	94
Cu	8.0	8.0	8.0	6.0	8.0	5.0	<5	15.0	13.0	11.0	10.0	10.0	11.0	11.0	55.0	5.0	59.0	
Ba/Th	69.67	66.48	72.34	77.47	70.18	73.82	7.88	16.74	168.39	128.94	132.01	134.42	136.97	392.36	137.92	2459.18		
Sr/Y	17.98	18.01	19.48	10.26	12.53	9.19	0.46	0.81	44.53	34.40	33.72	33.55	33.30	33.36	32.85	12.73		
Eu/Eu*[d]	0.82	0.81	0.80	0.81	0.82	0.80	0.24	0.36	1.01	0.97	0.96	0.89	0.85	0.88	0.94	0.81		
$(La/Sm)_N$	4.67	4.77	4.64	4.95	4.95	4.65	5.28	4.88	3.32	3.23	3.24	3.08	2.95	3.04	3.10	4.68		
$(Dy/Yb)_N$	1.14	1.15	1.22	1.13	1.11	1.21	0.74	0.76	1.34	1.26	1.24	1.27	1.21	1.17	1.23	1.09		
$(La/Yb)_N$	13.31	13.49	14.59	13.48	13.45	13.95	6.81	5.76	9.89	9.40	9.30	9.24	8.92	8.66	9.45	13.26		
Th/La	0.25	0.27	0.25	0.26	0.27	0.25	0.67	0.73	0.14	0.16	0.16	0.16	0.16	0.16	0.16	0.01		
Ba/Rb	6.90	6.50	6.59	6.71	5.91	5.74	0.80	2.23	119.85	66.08	115.36	64.69	67.36	243.01	88.39	6.69		
Rb/Sr	0.28	0.30	0.30	0.60	0.51	0.69	18.29	7.25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.43		
Nb/U	8.20	8.11	8.29	8.61	8.37	6.91	7.72	7.73	8.07	7.41	6.37	7.57	7.66	7.08	7.30			

[a]Major elements data were corrected for lose on ignition (LOI); [b]Mg# =100*MgO/(MgO + 0.9*$Fe_2O_3^T$); [c]A/CNK = [mole Al_2O_3/(CaO + Na_2O + K_2O)]; [d]Eu/Eu* = $Eu_N/(Sm_N \times Gd_N)^{1/2}$.

Table DR4. Whole-rock Rb-Sr, Sm-Nd and Lu-Hf isotopes data for Mesozoic bimodal volcanics from the Fanchang basin in the Middle-Lower Yangtze Valley [a]

Sample	13FC04	13FC05	13FC07	13FC09	13FC10	13FC11	13FC15A	13FC15B	13FC16	13FC17	13NW35	13NW35R
Rb (ppm)	168.0	180.0	187.0	204.0		216.0	12.8	12.1	9.3	9.3	79.7	79.7
Sr (ppm)	606.0	598.0	312.0	294.0		29.8	983.0	979.0	954.0	969.0	421.0	421.0
$^{87}Rb/^{86}Sr$	0.802	0.871	1.735	2.008		21.047	0.038	0.036	0.028	0.028	0.548	0.548
$^{87}Sr/^{86}Sr$	0.70911	0.70922	0.71049	0.71101		0.74474	0.74231	0.70663	0.70663	0.70662	0.70769	0.70771
2σ(a)	0.000020	0.000025	0.000021	0.000022		0.000025	0.000021	0.000020	0.000017	0.000017	0.000007	0.000025
Isr(t)	0.70765	0.70764	0.70735	0.70737		0.70659	0.74224	0.70657	0.70657	0.70657	0.70670	0.70672
Sm (ppm)	9.26	8.91	8.14	8.71	5.78	5.20	7.85	8.04	7.66	7.96	3.55	3.55
Nd (ppm)	52.90	52.00	47.60	50.00	29.30	27.30	38.40	39.50	37.60	39.90	18.60	18.60
$^{147}Sm/^{144}N$	0.1058	0.1036	0.1034	0.1053	0.1192	0.1151	0.1236	0.1230	0.1232	0.1206	0.1154	0.1154
$^{143}Nd/^{144}N$	0.51214	0.51217	0.51217	0.51217	0.51215	0.51216	0.51229	0.51229	0.51230	0.51229	0.51221	0.51222
2σ(a)	0.000009	0.000016	0.000007	0.000008	0.000008	0.000013	0.000004	0.000006	0.000008	0.000009	0.000008	0.000008
$\varepsilon_{Nd}(t)$	-7.98	-7.54	-7.54	-7.46	-8.11	-7.89	-5.37	-5.47	-5.30	-5.37	-6.85	-6.72
T_{DM1}(Ga)	1.42	1.36	1.36	1.38	1.61	1.53	1.45	1.45	1.43	1.40	1.45	1.44
T_{DM2}(Ga)	1.58	1.55	1.55	1.54	1.59	1.58	1.37	1.38	1.36	1.37	1.49	1.48
Lu (ppm)		0.56			0.76	0.70	0.42	0.43		0.40	0.27	0.27
Hf (ppm)		9.3			6.4	5.7	4.6	4.5		4.4	2.9	2.9
$^{176}Lu/^{177}Hf$		0.00855			0.01687	0.01744	0.01297	0.01357		0.01291	0.01323	0.01323
$^{176}Hf/^{177}Hf$		0.28249			0.28251	0.28251	0.28266	0.28266		0.28265	0.28257	0.28257
2σ (a)		0.000007			0.000008	0.000009	0.000010	0.000010		0.000004	0.000007	0.000007
$\varepsilon_{Hf}(t)$		-8.19			-8.23	-8.43	-2.73	-2.85		-3.01	-5.97	-5.97
2σ (a)		0.13			0.14	0.16	0.19	0.19		0.08	0.12	0.12
T_{DM1} (Ga)		1344			1807	1867	1234	1268		1248	1436	1436
T_{DM2} (Ga)		1672			1670	1683	1327	1334		1344	1531	1531
$\Delta\varepsilon_{Hf}(t)$[b]		2.51			3.40	2.84	4.53	4.57		4.25		

[a]The initial isotopic ratios are calculated at t = 130 Ma based on the SIMS/LA-ICP-MS U-Pb dating and the whole-rock Rb, Sr, Sm, Nd, Lu and Hf contents that were measured by ICP-MS.

[b]Calculated according to the Hf-Nd isotopes correlation function: $\Delta\varepsilon Hf(t) = \varepsilon Hf(t) - 1.59\ \varepsilon Nd(t) - 1.28$ after Vervoort et al. (1999) and Chauvel et al. (2007).

Table DR5. SIMS zircon O isotope data for Mesozoic trachytes and rhyolite from the Fanchang basin in the Middle-Lower Yangtze Valley

Spot	SIMS age[a] (Ma)	1σ	$\delta^{18}O$ (‰)	2σ
Trachyte 13FC04				
1	128	2	7.3	0.3
4	133	2	7.3	0.3
11	130	2	7.6	0.3
12	126	2	7.6	0.3
13	121	2	6.9	0.3
14	126	2	7.1	0.3
15	123	2	6.7	0.4
17	128	5	7.3	0.3
23	127	2	6.5	0.4
27	124	2	7.4	0.4
28	122	2	7.6	0.3
Trachyte 13FC07				
1	123	2	7.3	0.3
2	122	3	7.1	0.3
3	118	2	7.2	0.3
4	127	2	6.9	0.3
5	125	2	7.3	0.2
6	125	2	6.9	0.3
10	123	2	7.0	0.3
11	124	2	7.2	0.2
13	125	3	7.4	0.2
16	123	2	7.7	0.3
18	129	2	6.6	0.2
19	125	2	6.8	0.3
20	129	2	7.5	0.2
24	127	3	7.1	0.3
25	120	2	7.7	0.4
26	129	2	6.8	0.3
27	124	2	7.2	0.2
28	125	2	7.7	0.3
29	133	2	7.0	0.2
33	126	2	7.7	0.3
34	126	2	7.4	0.2
Trachyte 13FC09				
1	126	2	6.9	0.3
3	128	2	7.5	0.3
4	124	2	7.5	0.2
5	126	2	6.8	0.5
6	127	3	7.3	0.4
7	115	2	7.1	0.3
8	128	2	7.6	0.4
12	126	2	6.8	0.4
13	125	2	6.3	0.4
15	124	2	7.1	0.3
16	124	2	6.4	0.4
18	127	2	7.3	0.3
19	122	2	7.4	0.4
20	127	2	7.2	0.4
21	128	2	7.0	0.3
25	121	2	7.6	0.3
26	126	2	7.4	0.4
Rhyolite 13FC10				
1	126	2	7.1	0.3
2	127	2	8.4	0.3
3	130	2	6.8	0.3
4	129	2	7.4	0.3
6	128	2	7.2	0.3
8	128	2	9.2	0.3
9	131	2	7.0	0.3
10	127	2	7.8	0.3
12	126	2	7.4	0.3
14	127	2	7.3	0.4
15	135	2	8.6	0.3
17	129	2	7.3	0.4
19	126	2	7.3	0.5
21	128	2	7.0	0.2
22	127	2	8.5	0.3
24	127	2	7.3	0.3
25	128	2	6.6	0.4
30	124	2	7.5	0.3

[a]207-corrected $^{206}Pb/^{238}U$ ages for trachytes and rhyolite.

Table DR6. LA zircon Lu-Hf isotopes data for Mesozoic trachytes and rhyolite from the Fanchang basin in the Middle-Lower Yangtze Valley

Spot No.	$^{176}Yb/^{177}Hf$	$^{176}Lu/^{177}Hf$	$^{176}Hf/^{177}Hf$	±(2σ)	Age (Ma)[a]	±(1σ)	$\varepsilon_{Hf}(t)$	±(2σ)	T_{DM1} (Ma)	±(2σ)	T_{DM2} (Ma)	±(2σ)	$f_{Lu/Hf}$
13FC04 Trachyte													
13FC04-01	0.0187	0.0007	0.28229	0.00003	128	2	-14.4	1.0	1349	39	2088	63	-0.98
13FC04-04	0.0560	0.0020	0.28247	0.00003	133	2	-7.9	0.9	1132	38	1682	59	-0.94
13FC04-11	0.0509	0.0020	0.28219	0.00003	130	2	-17.9	1.0	1533	39	2307	62	-0.94
13FC04-12	0.0438	0.0017	0.28251	0.00003	126	2	-6.5	1.1	1063	45	1589	71	-0.95
13FC04-13	0.0350	0.0013	0.28249	0.00003	121	2	-7.4	0.9	1085	35	1644	56	-0.96
13FC04-14	0.0598	0.0023	0.28254	0.00004	126	2	-5.7	1.3	1046	54	1539	83	-0.93
13FC04-15	0.0603	0.0023	0.28256	0.00003	123	2	-5.1	1.1	1016	46	1497	70	-0.93
13FC04-17	0.0584	0.0023	0.28259	0.00004	128	5	-3.9	1.3	973	51	1426	79	-0.93
13FC04-23	0.0882	0.0033	0.28242	0.00004	127	2	-9.8	1.3	1247	54	1801	82	-0.90
13FC04-27	0.0398	0.0015	0.28247	0.00003	124	2	-7.9	1.0	1113	40	1679	62	-0.96
13FC04-28	0.0425	0.0016	0.28254	0.00003	122	2	-5.7	1.1	1023	43	1534	67	-0.95
13FC07 Trachyte													
13FC07-01	0.0306	0.0011	0.28247	0.00002	123	2	-8.1	0.7	1105	28	1684	45	-0.97
13FC07-02	0.1104	0.0036	0.28249	0.00002	122	3	-7.5	0.8	1151	33	1649	51	-0.89
13FC07-04	0.0506	0.0017	0.28250	0.00002	127	2	-7.0	0.7	1085	28	1624	44	-0.95
13FC07-05	0.0319	0.0011	0.28246	0.00002	125	2	-8.6	0.8	1129	33	1721	52	-0.97
13FC07-06	0.0755	0.0025	0.28247	0.00002	125	2	-8.1	0.8	1150	32	1692	49	-0.93
13FC07-10	0.0510	0.0017	0.28252	0.00002	123	2	-6.3	0.8	1052	33	1574	51	-0.95
13FC07-11	0.1284	0.0042	0.28251	0.00003	124	2	-7.1	0.9	1153	40	1623	58	-0.87
13FC07-13	0.0210	0.0007	0.28244	0.00002	125	3	-9.1	0.7	1144	28	1757	45	-0.98
13FC07-16	0.0836	0.0028	0.28248	0.00002	123	2	-7.7	0.8	1140	33	1665	51	-0.92
13FC07-19	0.0923	0.0031	0.28254	0.00002	125	2	-5.7	0.8	1063	32	1535	49	-0.91
13FC07-20	0.1015	0.0034	0.28257	0.00002	129	2	-4.8	0.9	1037	36	1483	54	-0.90
13FC07-26	0.0439	0.0015	0.28245	0.00002	129	2	-8.9	0.6	1154	26	1740	41	-0.95
13FC07-27	0.0731	0.0024	0.28248	0.00002	124	2	-7.7	0.8	1129	31	1662	47	-0.93
13FC07-29	0.1071	0.0035	0.28246	0.00002	133	2	-8.5	0.8	1201	33	1721	51	-0.90
13FC07-33	0.0565	0.0019	0.28246	0.00002	126	2	-8.5	0.8	1147	32	1713	49	-0.94
13FC07-34	0.0757	0.0025	0.28247	0.00002	126	2	-8.2	0.8	1153	34	1695	54	-0.92
13FC09 Trachyte													
13FC09-03	0.0374	0.0013	0.28245	0.00002	128	2	-8.9	0.8	1150	33	1743	52	-0.96
13FC09-04	0.0375	0.0013	0.28244	0.00002	124	2	-9.1	0.8	1151	31	1748	49	-0.96
13FC09-05	0.0628	0.0022	0.28244	0.00003	126	2	-9.3	0.9	1191	36	1767	56	-0.93
13FC09-07	0.0492	0.0019	0.28255	0.00003	115	2	-5.5	1.1	1019	45	1518	70	-0.94
13FC09-08	0.0456	0.0015	0.28247	0.00002	128	2	-8.1	0.8	1122	31	1689	48	-0.95
13FC09-16	0.0470	0.0016	0.28250	0.00002	124	2	-7.0	0.8	1079	30	1620	48	-0.95
13FC09-18	0.0340	0.0012	0.28249	0.00002	127	2	-7.3	0.8	1083	34	1642	53	-0.96
13FC09-19	0.0268	0.0010	0.28254	0.00003	122	2	-5.5	0.9	1001	37	1521	58	-0.97
13FC09-20	0.0450	0.0016	0.28248	0.00002	127	2	-7.9	0.9	1115	34	1677	54	-0.95
13FC09-21	0.0779	0.0027	0.28254	0.00002	128	2	-5.8	0.8	1060	34	1547	52	-0.92
13FC09-26	0.0392	0.0014	0.28242	0.00002	126	2	-9.7	0.9	1185	35	1794	55	-0.96
13FC10 Rhyolite													
13FC10-01	0.0995	0.0035	0.28244	0.00003	126	2	-9.1	1.2	1223	52	1754	78	-0.89
13FC10-02	0.0567	0.0020	0.28246	0.00002	127	2	-8.3	0.8	1146	33	1704	52	-0.94
13FC10-03	0.0910	0.0032	0.28256	0.00002	130	2	-4.8	0.8	1033	36	1484	54	-0.90
13FC10-04	0.0776	0.0026	0.28242	0.00003	129	2	-9.8	1.0	1227	40	1800	61	-0.92
13FC10-06	0.1037	0.0033	0.28249	0.00002	128	2	-7.6	0.7	1153	31	1658	47	-0.90
13FC10-08	0.0645	0.0020	0.28250	0.00002	128	2	-7.1	0.8	1096	31	1627	48	-0.94
13FC10-09	0.0510	0.0017	0.28250	0.00002	131	2	-6.9	0.8	1083	33	1619	52	-0.95
13FC10-10	0.0458	0.0015	0.28223	0.00002	127	2	-16.5	0.8	1461	31	2222	48	-0.96
13FC10-12	0.0415	0.0014	0.28251	0.00002	126	2	-6.7	0.8	1063	33	1600	51	-0.96
13FC10-14	0.0833	0.0029	0.28253	0.00003	127	2	-6.1	1.1	1078	47	1565	71	-0.91
13FC10-15	0.1545	0.0056	0.28238	0.00004	135	2	-11.3	1.5	1397	67	1897	95	-0.83
13FC10-17	0.0861	0.0027	0.28255	0.00002	129	2	-5.1	0.9	1037	36	1507	54	-0.92
13FC10-19	0.0685	0.0021	0.28248	0.00002	126	2	-7.6	0.8	1120	34	1660	53	-0.94
13FC10-21	0.0689	0.0024	0.28246	0.00002	128	2	-8.5	0.7	1167	30	1718	46	-0.95
13FC10-22	0.0528	0.0018	0.28251	0.00002	127	2	-6.7	0.9	1073	34	1601	54	-0.95
13FC10-24	0.0963	0.0031	0.28253	0.00002	127	2	-5.9	0.8	1077	33	1555	50	-0.91
13FC10-25	0.0876	0.0030	0.28250	0.00002	128	2	-7.0	0.7	1119	29	1620	44	-0.91
13FC10-30	0.0442	0.0017	0.28265	0.00005	124	2	-1.8	1.7	871	70	1290	110	-0.95
Basalts													
13FC13-02	0.1059	0.0032	0.28249	0.00003	126	2	-7.3	1.1	1137	45	1641	68	-0.90
13FC13-03	0.0649	0.0026	0.28251	0.00003	134	1	-6.4	1.2	1091	49	1593	74	-0.92
13FC13-04	0.0840	0.0031	0.28244	0.00004	139	3	-9.1	1.3	1220	55	1761	83	-0.91
13FC13-05	0.0664	0.0024	0.28262	0.00005	124	1	-2.8	1.9	927	78	1354	120	-0.93
13FC15A-05	0.0168	0.0006	0.28212	0.00002	127	2	-20.5	0.7	1583	28	2471	45	-0.98
13FC15B-01	0.0402	0.0015	0.28249	0.00005	125	2	-7.2	1.9	1086	75	1634	118	-0.95
13FC15B-03	0.0373	0.0015	0.28253	0.00003	134	4	-5.6	1.2	1029	49	1542	78	-0.96
13FC15B-04	0.0664	0.0025	0.28255	0.00003	124	2	-5.2	1.2	1029	48	1508	75	-0.93
13FC15B-07	0.0724	0.0029	0.28252	0.00004	132	1	-6.3	1.4	1091	58	1580	88	-0.91
13FC15B-10	0.1254	0.0047	0.28254	0.00008	126	1	-5.9	2.7	1117	117	1549	168	-0.86
13FC15B-15	0.1554	0.0051	0.28293	0.00008	132	1	7.9	2.9	519	133	681	188	-0.85
13FC17-03	0.0545	0.0021	0.28257	0.00003	137	3	-4.2	1.2	988	51	1452	78	-0.94

Table DR7. Electron microprobe data for plagiolcase phenocrysts in mafic volcanics from the Fanchang basin in the Middle and Lower Yangtze valley [a].

Sample	Spot	Domain[b]	SiO_2	Al_2O_3	MgO	CaO	Na_2O	K_2O	FeO	MnO	TiO_2	Total	An	Si[c]	Al[c]	Ca[c]	Na[c]	K[c]	Total[c]
13FC14	5-1	R	48.28	32.11	0.01	16.27	1.65	0.11	0.65	b.d.l.	0.03	99.10	84.51	2.26	1.77	0.82	0.15	0.01	5.00
13FC14	5-2	R	47.77	32.49	0.02	16.61	1.43	0.16	0.59	0.01	0.00	99.08	86.49	2.23	1.79	0.83	0.13	0.01	5.00
13FC14	5-3	R	48.22	31.96	0.01	16.50	1.59	0.13	0.62	0.02	0.02	99.06	85.17	2.26	1.76	0.83	0.14	0.01	5.00
13FC14	5-4	C	50.26	30.27	0.04	14.52	2.31	0.20	0.60	0.03	b.d.l.	98.21	77.66	2.36	1.68	0.73	0.21	0.01	5.00
13FC14	5-5	C	49.19	31.01	0.03	15.32	1.98	0.24	0.54	b.d.l.	0.06	98.36	81.09	2.31	1.72	0.77	0.18	0.01	5.00
13FC14	5-6	R	47.87	32.21	0.03	16.39	1.55	0.12	0.56	b.d.l.	0.03	98.75	85.39	2.25	1.78	0.82	0.14	0.01	5.00
13FC14	1-1	R	50.05	30.57	0.05	14.70	2.95	0.23	0.51	0.01	0.03	99.09	73.38	2.32	1.67	0.73	0.26	0.01	5.00
13FC14	1-2	R	48.64	31.82	0.05	16.00	2.32	0.15	0.64	0.02	0.05	99.68	79.24	2.25	1.74	0.79	0.21	0.01	5.00
13FC14	1-3	R	47.66	32.50	0.04	16.52	2.02	0.17	0.66	b.d.l.	0.07	99.63	81.91	2.21	1.78	0.82	0.18	0.01	5.00
13FC14	1-4	C	46.89	32.90	0.03	17.49	1.48	0.15	0.55	b.d.l.	0.03	99.52	86.71	2.18	1.80	0.87	0.13	0.01	5.00
13FC14	1-5	C	47.25	32.73	0.06	17.24	1.69	0.10	0.61	0.03	0.03	99.74	84.91	2.19	1.79	0.86	0.15	0.01	5.00
13FC14	1-6	C	47.54	32.57	0.08	16.62	1.84	0.15	0.59	b.d.l.	0.02	99.40	83.32	2.21	1.78	0.83	0.17	0.01	4.99
13FC14	1-7	C	47.82	32.71	0.05	16.78	1.82	0.09	0.54	0.03	0.03	99.86	83.62	2.21	1.78	0.83	0.16	0.01	5.00
13FC14	1-8	C	46.93	33.07	0.04	17.40	1.55	0.19	0.55	0.02	0.06	99.80	86.12	2.18	1.81	0.86	0.14	0.01	5.00
13FC14	1-9	R	48.66	32.00	0.06	16.42	2.12	0.19	0.70	0.01	0.01	100.17	81.04	2.24	1.74	0.81	0.19	0.01	5.00
13FC14	1-10	R	48.18	32.21	0.04	16.20	2.05	0.20	0.58	b.d.l.	0.05	99.50	81.39	2.24	1.76	0.81	0.18	0.01	5.00
13FC15A	3-1	R	48.29	32.39	0.03	17.29	1.53	0.11	0.69	0.03	0.03	100.39	86.16	2.23	1.77	0.86	0.14	0.01	5.00
13FC15A	3-2	M	49.40	31.66	0.04	16.38	2.19	0.20	0.46	0.00	0.07	100.40	80.51	2.27	1.71	0.81	0.20	0.01	5.00
13FC15A	3-3	M	48.80	31.91	0.03	16.64	1.96	0.12	0.53	0.02	0.06	100.07	82.44	2.25	1.74	0.82	0.18	0.01	5.00
13FC15A	3-4	M	48.73	32.06	0.05	16.67	1.92	0.14	0.54	0.03	b.d.l.	100.14	82.72	2.25	1.74	0.82	0.17	0.01	5.00
13FC15A	3-5	C	49.61	31.86	0.03	16.04	2.35	0.12	0.52	b.d.l.	0.00	100.52	79.07	2.27	1.72	0.79	0.21	0.01	5.00
13FC15A	4-2	R	48.83	31.88	0.03	16.72	1.91	0.14	0.61	b.d.l.	0.04	100.17	82.86	2.26	1.74	0.83	0.17	0.01	5.00
13FC15A	4-3	R	49.14	31.46	0.04	16.17	2.08	0.19	0.59	0.01	0.05	99.75	81.10	2.28	1.72	0.80	0.19	0.01	5.00
13FC15A	4-4	R	49.52	31.59	0.03	16.36	2.24	0.18	0.57	b.d.l.	0.06	100.56	80.17	2.27	1.71	0.81	0.20	0.01	5.00
13FC15A	4-5	C	50.02	31.34	0.04	15.81	2.34	0.20	0.65	0.03	0.01	100.42	78.90	2.30	1.70	0.78	0.21	0.01	5.00
13FC15A	4-6	C	49.54	31.37	0.03	16.03	2.44	0.14	0.64	0.01	0.05	100.25	78.38	2.28	1.70	0.79	0.22	0.01	5.00
13FC15A	8-2	R	47.93	32.21	0.04	17.12	1.63	0.07	0.62	b.d.l.	0.03	99.65	85.29	2.23	1.76	0.85	0.15	0.00	5.00
13FC15A	8-3	C	49.60	31.11	0.04	15.89	2.37	0.16	0.52	b.d.l.	0.08	99.78	78.72	2.29	1.69	0.79	0.21	0.01	5.00
13FC15A	8-4	C	49.68	31.10	0.01	16.00	2.27	0.17	0.59	b.d.l.	0.01	99.83	79.56	2.30	1.70	0.79	0.20	0.01	5.00
13FC15A	8-5	R	49.22	31.63	0.02	16.55	1.96	0.09	0.50	0.00	b.d.l.	99.98	82.38	2.27	1.72	0.82	0.18	0.01	5.00
13FC15A	9-1	R	48.77	31.12	0.01	16.04	2.17	0.10	0.62	b.d.l.	0.07	98.90	80.31	2.28	1.71	0.80	0.20	0.01	5.00
13FC15A	9-2	C	50.24	30.70	0.03	15.45	2.42	0.20	0.55	0.01	0.02	99.61	77.93	2.33	1.68	0.77	0.22	0.01	5.00
13FC15A	9-3	C	50.24	30.61	0.02	15.58	2.42	0.17	0.57	0.01	0.01	99.64	78.05	2.33	1.67	0.77	0.22	0.01	5.00
13FC15A	9-4	C	50.84	30.36	0.03	15.05	2.78	0.26	0.46	b.d.l.	0.06	99.84	74.92	2.34	1.65	0.74	0.25	0.02	5.00
13FC15A	9-5	R	49.14	31.29	0.03	16.08	2.18	0.08	0.61	b.d.l.	0.01	99.42	80.32	2.28	1.71	0.80	0.20	0.00	5.00
13FC17	1-1	R	48.57	32.01	0.04	15.99	2.22	0.09	0.53	b.d.l.	0.00	99.44	79.94	2.25	1.75	0.79	0.20	0.01	5.00
13FC17	1-2	C	48.82	31.90	0.03	15.87	2.29	0.16	0.57	b.d.l.	0.00	99.64	79.29	2.26	1.74	0.79	0.21	0.01	5.00
13FC17	1-3	C	49.16	31.85	0.01	16.04	2.37	0.08	0.49	b.d.l.	0.05	100.04	78.93	2.26	1.73	0.79	0.21	0.00	5.00
13FC17	1-4	C	48.81	31.31	0.01	15.42	2.53	0.11	0.45	b.d.l.	0.06	98.71	77.09	2.27	1.72	0.77	0.23	0.01	5.00
13FC17	1-5	R	48.03	32.21	0.03	16.28	2.13	0.12	0.56	0.03	0.08	99.47	80.84	2.23	1.76	0.81	0.19	0.01	5.00
13FC17	3-1	R	47.94	32.77	0.00	16.80	1.85	0.14	0.42	0.02	0.04	99.98	83.40	2.21	1.78	0.83	0.17	0.01	5.00
13FC17	3-2	C	49.59	31.24	0.05	14.93	2.74	0.20	0.55	0.02	0.07	99.38	75.10	2.29	1.70	0.74	0.25	0.01	5.00
13FC17	3-3	R	48.16	32.36	0.02	16.43	1.98	0.11	0.51	b.d.l.	0.06	99.62	82.11	2.23	1.77	0.82	0.18	0.01	5.00
13FC17	3-4	C	48.70	31.68	0.02	15.68	2.41	0.16	0.55	0.01	b.d.l.	99.21	78.22	2.26	1.73	0.78	0.22	0.01	5.00
13FC17	8-1	R	48.33	32.16	b.d.l.	16.53	2.07	0.16	0.59	b.d.l.	0.03	99.88	81.53	2.23	1.75	0.82	0.19	0.01	5.00
13FC17	8-2	C	48.75	31.74	0.06	15.46	2.42	0.22	0.59	0.00	0.05	99.28	77.90	2.26	1.74	0.77	0.22	0.01	5.00
13FC17	8-3	C	48.27	31.68	0.03	16.10	2.43	0.14	0.57	b.d.l.	0.03	99.24	78.58	2.24	1.73	0.80	0.22	0.01	5.00
13FC17	8-4	R	47.88	32.37	b.d.l.	16.66	2.01	0.11	0.44	b.d.l.	0.04	99.50	82.07	2.22	1.77	0.83	0.18	0.01	5.00

[a]b.d.l.= below determination limit

[b]Describes the domains where analytical spots located. R=rim; M=mantle; C=core.

[c]Plagioclase compositions in cations.

Table DR8. Published age data for Mesozoic bimodal volcanics from the Fanchang basin in the Middle-Lower Yangtze Valley.

Formation	Lithology	Age	Dating Methods	Reference
Kedoushan	Biotite trachyte	115.4	Biotite K-Ar	Hu et al. (1982)
Kedoushan	Trachy-andesite	126±1	LA-ICP-MS Zircon U-Pb	Tang et al. (2012)
Kedoushan	Biotite trahyte	128.1±3.1	LA-ICP-MS Zircon U-Pb	Yuan et al. (2010)
Kedoushan	Rhyolite	130.7±1.1	LA-ICP-MS Zircon U-Pb	Yan et al. (2009)
Kedoushan	Rhyolite	130.8±2.2	LA-ICP-MS Zircon U-Pb	Yuan et al. (2010)
Kedoushan	Basalt	131±2*	LA-ICP-MS Zircon U-Pb	Yan et al. (2009)
Chisha	Biotite trachyte	138.6	Biotite K-Ar	Hu et al. (1982)
Chisha	Andesite	122-125	Biotite K-Ar	Hu et al. (1982)
Chisha	Biotite trahytic porphyry	131.3±1.8	LA-ICP-MS Zircon U-Pb	Yuan et al. (2010)
Zhongfenchun	Rhyolite	129.1±1.3	LA-ICP-MS Zircon U-Pb	Liu et al. (2011)
Zhongfenchun	Rhyolite	131.2±1.1	LA-ICP-MS Zircon U-Pb	Liu et al. (2011)
Zhongfenchun	Trachy-andesite	133±3.2	LA-ICP-MS Zircon U-Pb	Tang et al. (2012)
Zhongfenchun	Trachy-andesite	134.4±2.9	LA-ICP-MS Zircon U-Pb	Yuan et al. (2010)

*Age for single analysis point.

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Table DR9. Major-trace elements and Sr-Nd isotopes data for Mesozoic bimodal volcanics from the Middle-Lower Yangtze Valley[a]

Location	Formation	Rock type	Sample No.	SiO_2	Al_2O_3	$Fe_2O_3^T$	CaO	MgO	Na_2O	K_2O	TiO_2	MnO	P_2O_5	LOI	Total	Sc	V	Cr	Co	Ni	Cu	Zn	Cs	Rb
Fanchang	Kedoushan	Basalt	01TL084	48.21	19.43	9.18	11.01	5.58	2.76	1.86	1.35	0.49	0.14	1.81	100.60		211.00	31.80	31.80	29.20				41.30
Fanchang	Kedoushan	Basalt	128	48.26	19.28	10.60	11.22	4.57	3.60	0.99	1.53	0.15	0.20	0.53	98.72									
Fanchang	Kedoushan	Basalt	01TL087	48.62	18.88	9.42	10.87	5.67	2.72	1.82	1.39	0.50	0.15	1.85	100.30		220.00	32.70	32.80	28.60				38.70
Fanchang	Kedoushan	Basalt	01TL085	48.72	19.13	9.22	10.80	5.53	2.81	1.82	1.36	0.50	0.14	1.75	100.40		260.00	385.30	39.80	68.00				57.20
Fanchang	Kedoushan	Basalt	01TL086	49.14	19.06	9.52	10.43	5.16	3.60	1.04	1.43	0.50	0.15	2.24	100.00		219.00	17.10	30.90	17.30				6.00
Fanchang	Kedoushan	Basalt	KDS-07	49.37	19.24	9.90	9.62	4.37	4.00	1.15	1.60	0.16	0.51		97.21									
Fanchang	Kedoushan	Basalt	01TL342	50.01	18.65	9.35	11.15	4.22	3.47	1.01	1.46	0.51	0.17	2.45	99.70			18.40		25.80				<3.0
Fanchang	Kedoushan	Basalt	129	50.52	18.28	10.03	9.25	5.08	3.59	1.99	1.39	0.15	0.56	2.24	102.56									
Fanchang	Kedoushan	Basalt	01TL340	50.59	18.30	9.61	10.41	4.28	3.56	1.05	1.54	0.53	0.14	2.36	99.50			10.40		22.30				<3.0
Fanchang	Kedoushan	Basalt	15	50.61	18.96	10.35	9.04	2.40	4.71	1.77	1.68	0.21	0.83	2.56	102.92									
Fanchang	Kedoushan	Basalt	130	50.61	18.96	10.35	9.04	2.40	4.71	1.77	1.69	0.21	0.97	2.56	103.06									
Fanchang	Kedoushan	Basalt	01TL338	50.65	17.00	10.52	9.85	4.53	4.01	1.03	1.66	0.58	0.18	2.69	99.70			14.30		19.40				<3.0
Fanchang	Kedoushan	Basalt	01TL344	50.84	18.30	9.37	10.56	3.84	3.77	1.07	1.59	0.55	0.13	2.61	99.40			18.20		21.70				<3.0
Fanchang	Kedoushan	Basalt	01TL341	50.99	16.98	10.40	9.58	4.44	3.60	1.64	1.64	0.56	0.16	1.62	99.70			10.10		20.60				12.80
Fanchang	Kedoushan	Basalt	01TL345	51.01	16.89	10.55	9.16	4.71	3.78	1.46	1.71	0.56	0.17	2.07	99.60			17.70		20.70				6.10
Fanchang	Kedoushan	Basalt	01TL343	51.03	16.86	10.59	9.14	4.59	3.82	1.54	1.67	0.56	0.17	1.72	99.70			13.00		23.40				13.70
Fanchang	Kedoushan	Basalt	01TL346	51.06	16.80	10.54	9.12	4.58	3.89	1.56	1.68	0.57	0.17	2.07	99.70			13.80		20.40				14.60
Fanchang	Kedoushan	Basalt	01TL339	51.06	17.43	10.13	9.62	4.27	3.95	1.13	1.66	0.57	0.16	2.37	99.70			17.70		20.40				<3.0
Fanchang	Kedoushan	Basalt	01TL337	51.29	17.01	10.19	9.52	4.25	3.98	1.25	1.76	0.57	0.18	1.98	99.50			17.10		18.70				3.00
Fanchang	Chisha	Trachyandesite	CS-06	60.44	15.79	4.56	4.68	0.78	2.41	5.39	0.80	0.22	0.34		92.81									
Fanchang	Kedoushan	Trachyandesite	8	60.47	17.41	7.59	1.29	3.48	3.87	3.08	1.73	0.23	0.00		96.45									
Fanchang	Kedoushan	Trachyandesite	14	61.24	18.22	6.91	4.36	0.54	5.06	3.21	1.74	0.07	0.19	1.08	100.92									
Fanchang	Chisha	Trachyte	18	63.37	16.29	3.62	3.90	1.12	1.95	5.96	0.62	0.19	0.17		94.53									
Fanchang	Chisha	Trachyte	23	64.17	18.03	5.00	2.80	0.50	3.39	5.77	0.91	0.07	0.27		98.17									
Fanchang	Kedoushan	Trachyte	9	64.62	16.85	5.31	3.53	0.49	4.93	3.70	1.15	0.21	0.56		98.59									
Fanchang	Chisha	Trachyte	133	64.66	16.74	4.11	1.73	0.77	4.11	5.49	0.63	0.15	0.00		95.71									
Fanchang	Kedoushan	Trachyte	13	64.66	17.38	5.52	2.28	1.22	5.88	2.80	0.60	0.11	0.08	1.92	101.64									
Fanchang	Chisha	Trachyte	16	64.67	16.24	3.75	2.57	0.95	2.14	7.18	0.61	0.21	0.20		95.82									
Fanchang	Chisha	Trachyte	CS002-3	64.71	17.40	4.16	2.43	1.10	4.19	4.85	0.71	0.11	0.34	1.87	99.35			23.00	7.01	12.60	8.13	102.00	4.25	145.00
Fanchang	Kedoushan	Trachyte	12	64.94	17.72	3.43	1.97	0.73	3.84	6.25	0.38	0.11	0.01	2.69	102.07									
Fanchang	Chisha	Trachyte	21	65.34	16.79	5.12	3.44	0.44	3.60	5.17	0.98	0.08	0.35		98.55									
Fanchang	Zhongfencu	Dacite	09FC004-1	65.76	16.98	5.29	4.18	1.42	3.81	1.58	0.63	0.08	0.26	1.44	99.31			9.43	11.40	7.01	24.80	76.90	5.44	54.60
Fanchang	Kedoushan	Dacite	10	65.77	16.43	6.49	3.19	2.73	2.65	3.16	0.80	0.13	0.49	2.19	103.44									
Fanchang	Kedoushan	Trachyte	KDS10	66.43	17.95	2.84	0.58	0.95	6.26	4.33	0.54	0.04	0.36	1.65	99.84	0.92	10.12	11.07	1.35	3.19	5.86			154.20
Fanchang	Chisha	Trachyte	19	67.08	16.26	4.00	1.90	0.86	3.27	5.99	0.62	0.05	0.10		97.41									
Fanchang	Kedoushan	Trachyte	11	67.32	17.76	3.40	1.22	0.31	4.93	5.10	0.77	0.07	0.15	1.36	101.01									
Fanchang	Chisha	Trachyte	20	67.44	15.75	5.23	3.88	0.75	3.68	4.11	0.89	0.09	0.41		99.44									
Fanchang	Chisha	Trachyte	17	67.46	17.71	4.06	0.75	0.57	2.36	7.87	0.75	0.82	0.10		99.68									
Fanchang	Kedoushan	Trachyte	KDS11	68.41	16.80	2.60	1.07	0.96	5.76	3.76	0.52	0.04	0.34	1.67	100.00	2.31	38.54	13.96	5.03	7.27	10.77			136.90
Fanchang	Zhongfencu	Rhyolite	09FC003	72.07	15.57	2.77	1.10	0.48	2.91	4.64	0.30	0.05	0.11	2.01	99.26			1.88	2.14	1.48	2.33	41.90	4.01	149.00
Fanchang	Zhongfencu	Rhyolite	25	72.07	14.43	1.90	1.68	0.46	2.88	6.56	0.31	0.02	0.05		97.63									
Fanchang	Kedoushan	Rhyolite	6	74.04	14.98	2.45	0.67	0.16	4.41	5.43	0.28	0.05	0.00	0.53	100.73									
Fanchang	Kedoushan	Rhyolite	KDS16	74.65	14.64	1.08	0.14	0.14	4.21	4.97	0.20	0.05	0.02	2.05	99.96	3.17	7.65	12.33	0.81	7.05	6.87			250.30
Fanchang	Kedoushan	Rhyolite	KDS-09	74.95	13.35	1.79	0.25	0.28	1.73	6.48	0.26	0.06	0.05		96.49									
Fanchang	Kedoushan	Rhyolite	KDS13	75.28	14.25	1.08	0.14	0.11	4.54	4.47	0.19	0.03	0.02	1.26	99.89	3.03	7.20	9.75	0.74	4.20	5.65			247.20
Fanchang	Kedoushan	Rhyolite	5	75.76	14.79	1.63	0.12	0.06	3.43	5.94	0.19	0.05	0.03		99.24									
Fanchang	Kedoushan	Rhyolite	7	76.98	13.72	0.78	0.17	0.17	3.90	5.39	0.10	0.05	0.02	0.79	100.11									
Fanchang	Kedoushan	Rhyolite	132	76.98	13.72	0.78	0.17	0.17	3.90	5.39	0.10	0.05	0.00	0.79	100.09									
Fanchang	Zhongfencu	Rhyolite	ZFC-03	77.75	12.90	1.23	0.16	0.30	2.28	4.94	0.16	0.08	0.02		97.12									
Fanchang	Kedoushan	Rhyolite	KDS15	79.23	12.35	0.73	0.17	0.36	2.88	4.14	0.16	0.03	0.02	1.92	99.88	4.57	6.61	9.00	0.92	3.51	6.46			199.20

[a]Major elements data were corrected for lose on ignition (LOI).

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Ba	Th	U	Nb	Ta	K	La	Ce	Pb	Pr	Sr	P	Nd	Zr	Hf	Sm	Eu	Ti	Gd	Tb	Dy	Y	Ho	Er	Tm	Yb
899.00	3.57	0.96	8.40	0.50	15461.82	31.60	67.80	8.60	9.05	1220.00	618.42	36.50	138.00	3.43	6.72	1.86	8071.00	5.68	0.87	4.76	27.20	0.91	2.50	0.38	2.37
					8192.57						852.34						9182.65								
1326.00	3.40	0.90	8.52	0.49	15093.61	32.20	69.30	8.60	9.29	1208.00	664.88	38.00	142.00	3.42	6.99	1.87	8342.45	5.94	0.88	4.89	27.90	0.92	2.54	0.38	2.36
924.00	4.14	4.59	10.80	0.85	15147.16	37.90	80.50	18.60	10.80	1390.00	619.29	43.70	164.00	4.25	8.53	2.26	8143.23	7.29	1.06	5.88	36.00	1.08	3.12	0.45	3.06
814.00	4.38	1.19	9.40	0.57	8661.53	32.70	69.00	9.00	9.25	1142.00	669.57	37.30	155.00	3.71	6.80	1.89	8585.30	5.84	0.90	4.99	28.80	0.96	2.61	0.40	2.52
					9558.00						2211.60						9614.05								
844.00	5.60	1.80	11.90	0.80	8365.51	29.80	66.50	26.60	8.28	1020.00	762.83	31.70	181.00	4.70	6.24	1.85	8753.62	5.38	0.80	4.38	23.60	0.85	2.46	0.38	2.28
					16555.82						2422.44						8319.85								
2657.00	6.10	1.80	12.30	0.90	8716.82	29.00	67.60	23.60	8.24	941.00	628.92	31.30	182.00	4.10	6.19	1.90	9257.25	5.47	0.80	4.50	23.20	0.86	2.47	0.38	2.36
					14678.36						3633.66						10076.27								
					14678.36						4216.84						10107.08								
892.00	7.10	1.90	13.90	0.90	8557.35	33.20	76.00	30.10	9.20	818.00	764.71	36.10	196.00	4.90	7.13	2.07	9949.43	6.48	0.97	5.14	27.80	1.02	2.92	0.45	2.82
3390.00	5.70	1.80	13.20	0.60	8919.87	33.30	72.80	25.80	9.00	987.00	586.11	34.10	187.00	4.60	6.72	2.00	9538.48	5.90	0.87	4.72	25.70	0.93	2.65	0.41	2.49
858.00	6.70	1.60	14.00	0.80	13627.03	34.50	78.30	26.30	9.52	840.00	711.88	35.80	201.00	5.00	7.32	2.12	9840.88	6.57	0.96	5.37	28.20	1.03	2.98	0.46	2.91
1748.00	7.00	1.80	13.40	1.20	12086.65	34.00	77.10	29.30	9.30	869.00	760.64	35.50	245.00	5.30	7.02	2.07	10265.19	6.29	0.92	5.33	27.10	1.01	2.94	0.44	2.77
884.00	6.30	2.00	13.90	0.90	12793.68	35.40	77.60	28.70	9.49	869.00	757.14	36.40	208.00	5.20	7.40	2.11	10034.49	6.50	0.96	5.43	28.20	1.04	2.99	0.46	2.87
1032.00	6.90	2.40	14.00	1.40	12924.57	37.60	79.90	28.70	9.56	909.00	759.86	37.00	216.00	5.00	7.17	2.14	10070.46	6.53	0.96	5.36	28.00	1.04	2.96	0.45	2.88
875.00	6.50	2.00	13.70	0.70	9382.14	33.10	73.60	25.00	8.99	814.00	717.36	34.00	201.00	4.90	6.83	1.97	9978.31	5.89	0.87	4.91	25.60	0.94	2.73	0.41	2.59
2670.00	6.80	2.00	14.00	0.90	10385.37	33.30	73.50	29.20	9.32	814.00	805.46	34.80	223.00	6.00	6.91	2.03	10573.61	5.98	0.90	4.95	26.80	0.96	2.83	0.43	2.66
					44717.78						1502.81						4807.03								
					25601.78						0.00						10353.59								
					26625.85						807.48						10415.22								
					49496.78						740.19						3697.71								
					47875.34						1179.82						5484.94								
					30722.14						2422.44						6902.40								
					45571.17						0.00						3759.34								
					23212.28						358.88						3574.46								
					59566.82						852.34						3636.08								
1076.00	16.10	2.32	23.30		40281.11	62.90	116.00		13.00	410.00	1477.29	45.80	392.00		8.00	1.86	4243.48	6.51	0.87	5.10	29.30	1.07	2.95	0.45	3.15
					51886.28						53.83						2280.26								
					42925.66						1525.24						5854.71								
1114.00	7.05	2.36	9.40		13147.34	30.70	52.10		6.06	1389.00	1114.70	22.70	156.00		4.22	1.36	3797.79	3.54	0.48	2.85	15.70	0.59	1.57	0.23	1.59
					26199.16						2153.28						4776.21								
212.70	10.63	3.62	16.41	1.41	35931.68	33.64	109.20	13.32	6.06	24.82	1568.82	20.59	75.27	2.67	2.28	0.39	3229.81	2.26	0.22	1.12	7.48	0.25	0.84	0.15	1.21
					49752.80						448.60						3697.71								
					42328.28						641.50						4591.33								
					34135.71						1794.40						5361.68								
					65369.89						457.57						4517.37								
1009.00	10.31	2.69	8.67	0.22	31237.16	41.36	142.90	17.13	7.97	189.00	1504.46	29.34	236.80	5.54	4.64	1.26	3127.66	4.81	0.57	3.14	18.48	0.62	1.89	0.29	2.03
930.00	15.70	2.81	14.10		38498.41	38.40	52.20		6.20	293.00	493.59	20.50	186.00		3.45	0.89	1787.71	2.76	0.37	2.12	13.40	0.44	1.26	0.19	1.40
					54446.46						224.30						1848.86								
					45059.14						0.00						1663.97								
78.92	24.16	3.77	37.47	1.92	41291.22	50.32	149.40	18.55	10.22	7.11	98.05	35.94	184.10	6.80	5.21	0.42	1175.61	5.20	0.67	3.95	23.89	0.83	2.65	0.42	3.07
					53763.75						224.30						1540.71								
48.07	25.67	3.55	39.73	1.73	37118.07	50.63	163.70	21.30	9.95	4.74	84.06	34.57	201.00	7.18	4.44	0.40	1118.40	4.35	0.50	2.85	16.82	0.61	2.02	0.34	2.57
					49326.10						134.58						1109.31								
					44717.78						89.72						616.29								
					44717.78						0.00						616.29								
					41048.19						103.18						986.06								
121.80	19.78	4.94	32.73	1.37	34405.91	58.51	158.20	22.08	11.03	20.69	102.46	36.63	162.40	5.75	4.35	0.37	985.29	4.02	0.45	2.51	13.43	0.54	1.78	0.30	2.26

Lu	Initial $^{87}Sr/^{86}Sr$	εNd(t)	Mg#	K_2O+Na_2O	K_2O/Na_2O	A/CNK	Rb/Nb	Rb/La	La/Nb	Nb/U	Ce/Pb	Ba/Th	Sr/Y	Eu/Eu*	$(La/Sm)_N$	Nb/Ta	$(Dy/Yb)_N$	$(La/Yb)_N$	Th/La	Ba/Rb	Rb/Sr	References
0.37	0.70668	-4.90	54.61	4.63	0.67	1.06	4.92	1.31	3.76	8.75	7.88	251.82	44.85	0.92	3.04	16.80	1.34	9.56	0.11	21.77	0.03	Yan et al. (2008)
			46.08	4.58	0.27	1.02																Huang et al. (2010)
0.38			54.38	4.54	0.67	1.05	4.54	1.20	3.78	9.47	8.06	390.00	43.30	0.89	2.97	17.39	1.39	9.79	0.11	34.26	0.03	Yan et al. (2008)
0.46	0.70665	-4.80	54.30	4.63	0.65	1.06	5.30	1.51	3.51	2.35	4.33	223.19	38.61	0.88	2.87	12.71	1.29	8.88	0.11	16.15	0.04	Yan et al. (2008)
0.40			51.74	4.64	0.29	1.05	0.64	0.18	3.48	7.90	7.67	185.84	39.65	0.92	3.10	16.49	1.33	9.31	0.13	135.67	0.01	Yan et al. (2008)
			46.64	5.15	0.29	1.07																Huang et al. (2010)
0.33	0.70654	-5.37	47.18	4.47	0.29	1.00			2.50	6.61	2.50	150.71	43.22	0.98	3.08	14.88	1.29	9.38	0.19			Yan et al. (2008)
			50.07	5.58	0.56	1.02																Huang et al. (2010)
0.35			46.87	4.61	0.29	1.02			2.36	6.83	2.86	435.57	40.56	1.00	3.02	13.67	1.28	8.81	0.21			Yan et al. (2008)
			31.43	6.48	0.38	0.99																Huang et al. (2010)
			31.43	6.48	0.38	0.99																Huang et al. (2010)
0.43			45.99	5.04	0.26	0.94			2.39	7.32	2.52	125.63	29.42	0.93	3.01	15.44	1.22	8.44	0.21			Yan et al. (2008)
0.33			44.82	4.85	0.28	0.99			2.52	7.33	2.82	594.74	38.40	0.97	3.20	22.00	1.27	9.59	0.17			Yan et al. (2008)
0.44	0.70658	-3.63	45.79	5.24	0.46	0.95	0.91	0.37	2.46	8.75	2.98	128.06	29.79	0.93	3.04	17.50	1.24	8.50	0.19	67.03	0.02	Yan et al. (2008)
0.43	0.70663	-3.51	46.91	5.24	0.38	0.96	0.46	0.18	2.54	7.44	2.63	249.71	32.07	0.95	3.13	11.17	1.29	8.80	0.21	286.56	0.01	Yan et al. (2008)
0.43	0.70664	-3.67	46.20	5.36	0.40	0.96	0.99	0.39	2.55	6.95	2.70	140.32	30.82	0.93	3.09	15.44	1.27	8.85	0.18	64.53	0.02	Yan et al. (2008)
0.37			46.25	5.45	0.40	0.95	1.04	0.39	2.69	5.83	2.78	149.57	32.46	0.96	3.39	10.00	1.25	9.36	0.18	70.68	0.02	Yan et al. (2008)
0.38			45.52	5.08	0.29	0.97			2.42	6.85	2.94	134.62	31.80	0.95	3.13	19.57	1.27	9.17	0.20			Yan et al. (2008)
0.39	0.70659	-3.89	45.20	5.23	0.31	0.95	0.21	0.09	2.38	7.00	2.52	392.65	30.37	0.97	3.11	15.56	1.25	8.98	0.20	890.00	0.00	Yan et al. (2008)
			25.32	7.79	2.24	1.07																Huang et al. (2010)
			47.61	6.95	0.80	1.57																Huang et al. (2010)
			13.51	8.27	0.63	1.11																Huang et al. (2010)
			38.04	7.92	3.05	1.18																Huang et al. (2010)
			16.63	9.16	1.70	1.22																Huang et al. (2010)
			15.53	8.64	0.75	1.06																Huang et al. (2010)
			27.10	9.60	1.34	1.15																Huang et al. (2010)
			30.51	8.68	0.48	1.15																Huang et al. (2010)
			33.32	9.31	3.36	1.16																Huang et al. (2010)
0.49	0.707	-6.62	34.29	9.04	1.16	1.18	6.22	2.31	2.70	10.04		66.83	13.99	0.79	5.08		1.08	14.32	0.26	7.42	0.35	Liu et al. (2011)
			29.67	10.09	1.63	1.17																Huang et al. (2010)
			14.61	8.77	1.44	1.11																Huang et al. (2010)
0.24	0.707	-7.91	34.70	5.39	0.42	1.37	5.81	1.78	3.27	3.98		158.01	88.47	1.08	4.70		1.20	13.85	0.23	20.40	0.04	Liu et al. (2011)
			45.47	5.81	1.19	1.47																Huang et al. (2010)
0.20			39.77	10.59	0.69	1.15	9.40	4.58	2.05	4.53	8.20	20.01	3.32	0.53	9.52	11.64	0.62	19.94	0.32	1.38	6.21	Wen et al. (2012)
			29.94	9.26	1.83	1.17																Huang et al. (2010)
			15.22	10.03	1.03	1.19																Huang et al. (2010)
			22.14	7.79	1.12	1.08																Huang et al. (2010)
			21.61	10.24	3.33	1.34																Huang et al. (2010)
0.31			42.15	9.52	0.65	1.14	15.79	3.31	4.77	3.22	8.34	97.87	10.23	0.82	5.75	39.41	1.04	14.61	0.25	7.37	0.72	Wen et al. (2012)
0.22	0.707	-8.11	25.71	7.55	1.59	1.42	10.57	3.88	2.72	5.02		59.24	21.87	0.88	7.19		1.01	19.67	0.41	6.24	0.51	Liu et al. (2011)
			32.55	9.44	2.28	1.06																Huang et al. (2010)
			11.74	9.84	1.23	1.08																Huang et al. (2010)
0.46			20.80	9.18	1.18	1.17	6.68	4.97	1.34	9.94	8.05	3.27	0.30	0.25	6.24	19.52	0.86	11.76	0.48	0.32	35.20	Wen et al. (2012)
			23.51	8.20	3.75	1.32																Huang et al. (2010)
0.40			16.96	9.01	0.98	1.14	6.22	4.88	1.27	11.19	7.69	1.87	0.28	0.28	7.36	22.97	0.74	14.13	0.51	0.19	52.15	Wen et al. (2012)
			6.97	9.38	1.73	1.21																Huang et al. (2010)
			30.73	9.28	1.38	1.10																Huang et al. (2010)
			30.73	9.28	1.38	1.10																Huang et al. (2010)
			32.37	7.22	2.17	1.39																Huang et al. (2010)
0.35			49.36	7.02	1.44	1.31	6.09	3.40	1.79	6.63	7.16	6.16	1.54	0.27	8.68	23.89	0.74	18.57	0.34	0.61	9.63	Wen et al. (2012)

Table DR10. U-Pb-Hf-O isotopic data for the secondary standards that analyzed along with Mesozoic bimodal volcanics from the Middle-Lower Yangtze Valley.

SIMS U-Pb isotopes

Spot	Th (ppm)	U (ppm)	Th/U	f_{206} (%)	Isotope ratio $^{207}Pb/^{206}Pb$	1σ (%)	$^{206}Pb/^{238}Pb$	1σ	Age 207-corr age (Ma)	1σ
qinghu@1	316	856	0.369	0.06	0.04489	1.16	159.2	2.4	159.3	2.4
qinghu@2	546	1242	0.440	0.02	0.04958	0.84	160.4	2.4	160.4	2.4
qinghu@3	871	1688	0.516	0.25	0.04999	1.09	160.6	2.4	160.4	2.4
qinghu@4	1053	1597	0.659	0.04	0.04939	0.79	159.9	2.4	159.9	2.4
qinghu@5	594	1110	0.535	0.12	0.04872	1.16	159.1	2.4	159.2	2.4
qinghu@6	702	1435	0.490	0.12	0.0486	0.86	160.2	2.4	160.3	2.4
Qinghu@1	942	1566	0.602	0.18	0.04937	1.59	157.1	2.4	157.1	2.4
Qinghu@2	704	1542	0.456	0.15	0.04966	1.69	159.7	2.4	159.6	2.4
Qinghu@3	779	1395	0.558	0.22	0.04975	1.28	159.8	2.4	159.7	2.4
Qinghu@4	1135	2300	0.494	0.08	0.04945	1.14	160.1	2.4	160.1	2.4
Qinghu@5	914	1561	0.585	0.12	0.0497	1.17	162.8	2.4	162.7	2.4
Qinghu@6	351	846	0.415	0.18	0.0496	1.75	159.8	2.4	159.8	2.4
Qinghu@7	630	1480	0.426	0.21	0.04915	1.54	158.5	2.4	158.5	2.4
Qinghu@8	539	1193	0.452	0.25	0.04946	2.1	158.1	2.4	158.1	2.4

SIMS O isotope

Spot	$\delta^{18}O$ (‰)	2σ
penglai@1	5.3	0.3
penglai@10	5.4	0.4
penglai@11	5.2	0.3
penglai@12	5.3	0.2
penglai@13	5.1	0.3
penglai@14	5.5	0.3
penglai@15	5.7	0.4
penglai@16	5.4	0.4
penglai@17	5.2	0.3
penglai@18	4.9	0.3
penglai@2	5.0	0.3
penglai@3	5.5	0.3
penglai@4	4.9	0.3
penglai@5	5.5	0.3
penglai@6	5.2	0.4
penglai@7	5.1	0.3
penglai@8	5.1	0.3
penglai@9	5.2	0.2
Penglai@1	5.1	0.3
Penglai1@2	5.5	0.3
Penglai1@3	4.9	0.4
Penglai1@4	5.1	0.2
Penglai1@5	5.4	0.1
Penglai1@6	5.6	0.2
Penglai1@7	5.2	0.3
Penglai1@8	5.1	0.3
Penglai1@9	5.5	0.2
Penglai1@10	5.2	0.3
Penglai1@11	5.1	0.4
Penglai1@12	5.4	0.4
Penglai1@13	5.1	0.3
Penglai1@14	5.0	0.2
Penglai1@15	5.3	0.2
Penglai1@16	5.2	0.4
Penglai1@17	5.2	0.3
Penglai1@18	5.0	0.3
Penglai1@19	5.1	0.4
Penglai1@20	5.2	0.2
Penglai1@21	5.3	0.3
Penglai1@22	5.4	0.4
Penglai1@23	5.6	0.4
Penglai1@24	5.5	0.2
Penglai1@25	5.7	0.2
Penglai1@26	5.0	0.3
Penglai1@27	5.6	0.2
Penglai1@28	5.0	0.4
Penglai1@29	5.4	0.2
Penglai1@30	5.3	0.2
Penglai1@31	4.8	0.4
Penglai1@33	5.1	0.2
Penglai1@32	5.4	0.3

LA-ICPMS U-Pb isotopes

Spot	Element (ppm) U	Th	Pb	Th/U	Atomic ratios $^{207}Pb/^{206}Pb$	1σ	$^{207}Pb/^{235}U$	1σ	$^{206}Pb/^{238}U$	1σ	Apparent ages (Ma) $^{207}Pb/^{235}U$	1σ	$^{206}Pb/^{238}U$	1σ
Plesovice-01	800	84	47.78	0.10	0.0543	0.0014	0.4085	0.0106	0.0544	0.0004	348	8	342	2
Plesovice-02	884	97	51.21	0.11	0.0506	0.0012	0.3789	0.0089	0.0541	0.0004	326	7	339	2
Plesovice-03	885	98	51.85	0.11	0.0529	0.0012	0.3916	0.0091	0.0535	0.0004	336	7	336	2
Plesovice-04	608	57	35.89	0.09	0.0543	0.0019	0.4029	0.0139	0.0536	0.0004	344	10	337	3
Plesovice-05	892	98	52.52	0.11	0.0506	0.0023	0.3741	0.0167	0.0534	0.0004	323	12	335	2
Plesovice-06	876	94	51.69	0.11	0.0487	0.0020	0.3642	0.0143	0.0541	0.0004	315	11	339	3
Plesovice-07	820	84	48.01	0.10	0.0509	0.0012	0.3745	0.0087	0.0531	0.0004	323	6	334	2
Plesovice-08	711	69	42.37	0.10	0.0540	0.0014	0.4003	0.0103	0.0537	0.0004	342	7	337	3
Plesovice-09	503	46	30.80	0.09	0.0541	0.0014	0.4041	0.0099	0.0540	0.0005	345	7	339	3
Plesovice-10	859	116	52.18	0.13	0.0562	0.0013	0.4122	0.0091	0.0529	0.0004	350	7	332	2
Plesovice-11	560	53	34.29	0.09	0.0507	0.0013	0.3775	0.0099	0.0538	0.0005	325	7	338	3
Plesovice-12	766	83	47.90	0.11	0.0543	0.0013	0.4023	0.0096	0.0536	0.0004	343	7	337	3
Plesovice-13	601	54	38.00	0.09	0.0515	0.0026	0.3916	0.0189	0.0545	0.0007	336	14	342	4
Plesovice-14	802	76	50.15	0.10	0.0526	0.0023	0.3977	0.0170	0.0542	0.0007	340	12	340	4
Plesovice-15	808	77	49.43	0.10	0.0490	0.0021	0.3632	0.0154	0.0530	0.0006	315	12	333	4
Plesovice-16	873	86	54.45	0.10	0.0494	0.0022	0.3690	0.0157	0.0537	0.0007	319	12	337	4

LA-ICPMS Lu-Hf isotopes

Spot No.	$^{176}Yb/^{177}Hf$	$^{176}Lu/^{177}Hf$	$^{176}Hf/^{177}Hf$	±(2σ)
20150515B 44U8H GJ 5	0.0063	0.0002	0.282076	0.000035
20150515B 44U8H GJ 6	0.0061	0.0002	0.282082	0.000032
20150515B 44U8H GJ 6	0.0060	0.0002	0.282008	0.000034
20150515B 44U8H GJ 6	0.0063	0.0003	0.282067	0.000031
20150515B 44U8H GJ 6	0.0064	0.0003	0.282089	0.000033
20150515B 44U8H GJ 6	0.0066	0.0003	0.282074	0.000034
20150515B 44U8H GJ 6	0.0062	0.0002	0.282031	0.000037
20150515B 44U8H GJ 6	0.0063	0.0002	0.282084	0.000031
20150515B 44U8H GJ 6	0.0062	0.0002	0.282038	0.000030
20150515B 44U8H GJ 6	0.0063	0.0002	0.282024	0.000036
20150515B 44U8H GJ 6	0.0063	0.0002	0.281996	0.000034
20150515B 44U8H GJ 7	0.0062	0.0002	0.282134	0.000036
20150515B 44U8H GJ 7	0.0062	0.0002	0.282068	0.000036
20150515B 44U8H GJ 7	0.0061	0.0002	0.282038	0.000038
20150515B 44U8H GJ 7	0.0064	0.0002	0.282016	0.000035
20150515B 44U8H GJ 7	0.0063	0.0002	0.282048	0.000033
20150515B 44U8H GJ 7	0.0063	0.0002	0.282079	0.000032
20150515B 44U8H GJ 7	0.0066	0.0003	0.282134	0.000037
20150515B 44U8H GJ 7	0.0062	0.0002	0.282097	0.000035
20150515B 44U8H GJ 7	0.0066	0.0002	0.282039	0.000023
20150515B 44U8H GJ 8	0.0062	0.0002	0.281995	0.000036
20150515B 44U8H GJ 8	0.0062	0.0002	0.282071	0.000036
20150515B 44U8H GJ 8	0.0064	0.0002	0.282042	0.000040
20150515B 60U8H GJ 5	0.0064	0.0002	0.282034	0.000022
20150515B 60U8H GJ 5	0.0065	0.0003	0.281994	0.000023
20150515B 60U8H GJ 5	0.0063	0.0002	0.282048	0.000022
20150515B 60U8H GJ 5	0.0062	0.0002	0.282036	0.000023
20150515B 60U8H GJ 5	0.0064	0.0002	0.282056	0.000022
20150515B 60U8H GJ 5	0.0062	0.0002	0.282026	0.000019
20150515B 60U8H GJ 7	0.0065	0.0002	0.281997	0.000025
20150515B 60U8H GJ 8	0.0063	0.0002	0.282092	0.000023
20150515B 60U8H GJ 8	0.0065	0.0002	0.282042	0.000024
20150515B 60U8H GJ 8	0.0067	0.0002	0.282031	0.000023
20150515B 60U8H GJ 8	0.0067	0.0002	0.282058	0.000026
20150515B 60U8H GJ 8	0.0068	0.0002	0.282033	0.000024
20150515B 60U8H GJ 8	0.0065	0.0002	0.282022	0.000025
20150516 60U8H GJ 01	0.0067	0.0002	0.281996	0.000022
20150516 60U8H GJ 02	0.0068	0.0002	0.282015	0.000021
20150516 60U8H GJ 03	0.0066	0.0002	0.282021	0.000023
20150516 60U8H GJ 04	0.0068	0.0002	0.282025	0.000022
20150516 60U8H GJ 05	0.0061	0.0002	0.282034	0.000023
20150516 60U8H GJ 06	0.0065	0.0002	0.282000	0.000021
20150516 60U8H GJ 07	0.0066	0.0002	0.282020	0.000022
20150516 60U8H GJ 08	0.0068	0.0002	0.282015	0.000027
20150516 60U8H GJ 09	0.0068	0.0002	0.282053	0.000027
20150516 60U8H GJ 11	0.0069	0.0002	0.282039	0.000028
20150516 60U8H GJ 12	0.0067	0.0002	0.282003	0.000030
20150516 60U8H GJ 13	0.0061	0.0002	0.282016	0.000025
20150516 60U8H GJ 14	0.0071	0.0002	0.282022	0.000025
20150516 60U8H GJ 15	0.0070	0.0002	0.282047	0.000029
20150516 60U8H GJ 16	0.0067	0.0002	0.282027	0.000029
20150516 60U8H GJ 17	0.0062	0.0002	0.282046	0.000028
20150516 60U8H GJ 18	0.0067	0.0002	0.282040	0.000026
20150516B 60U8H GJ 0	0.0067	0.0002	0.282007	0.000025
20150516B 60U8H GJ 0	0.0068	0.0002	0.281989	0.000029
20150516B 60U8H GJ 0	0.0066	0.0002	0.281993	0.000033
20150516B 60U8H GJ 0	0.0067	0.0002	0.281988	0.000029
20150516B 60U8H GJ 0	0.0067	0.0002	0.282057	0.000027
20150516B 60U8H GJ 0	0.0069	0.0002	0.282076	0.000032
20150516B 60U8H GJ 0	0.0068	0.0002	0.282047	0.000030
20150516B 60U8H GJ 0	0.0072	0.0002	0.282012	0.000034
20150516B 60U8H GJ 0	0.0068	0.0002	0.282059	0.000027
20150516B 60U8H GJ 1	0.0069	0.0003	0.282035	0.000021
20150516B 60U8H GJ 1	0.0062	0.0002	0.281984	0.000025
20150516B 60U8H GJ 1	0.0066	0.0002	0.282043	0.000024
150515B 60U8H GJ 31	0.0060	0.0002	0.281996	0.000022
150515B 60U8H GJ 32	0.0062	0.0002	0.282027	0.000024
150515B 60U8H GJ 33	0.0063	0.0002	0.282018	0.000025
150515B 60U8H GJ 34	0.0062	0.0002	0.282022	0.000025
150515B 60U8H GJ 35	0.0065	0.0002	0.282025	0.000022
150515B 60U8H GJ 36	0.0065	0.0002	0.281979	0.000022
150515B 60U8H GJ 37	0.0064	0.0002	0.282034	0.000022
150515B 60U8H GJ 38	0.0065	0.0002	0.282026	0.000023
150515B 60U8H GJ 39	0.0065	0.0002	0.282036	0.000024
150515B 60U8H GJ 40	0.0063	0.0002	0.282022	0.000021
150515B 60U8H GJ 41	0.0062	0.0002	0.282044	0.000021
150515B 60U8H GJ 42	0.0062	0.0002	0.281993	0.000022
150515B 60U8H GJ 43	0.0064	0.0002	0.282025	0.000024
150515B 60U8H GJ 44	0.0064	0.0002	0.282020	0.000020
150515B 60U8H GJ 45	0.0063	0.0002	0.282041	0.000020
150515B 60U8H GJ 46	0.0064	0.0002	0.281993	0.000020
150515B 60U8H GJ 47	0.0062	0.0002	0.282028	0.000020
150515B 60U8H GJ 48	0.0064	0.0002	0.282040	0.000020
150515B 60U8H GJ 49	0.0063	0.0002	0.282033	0.000020
150515B 60U8H GJ 50	0.0063	0.0002	0.282006	0.000021
150515B 60U8H GJ 51	0.0063	0.0002	0.282032	0.000021
150515B 60U8H GJ 52	0.0062	0.0002	0.282025	0.000022
150515B 60U8H MUD 4	0.0019	0.0001	0.282507	0.000016
150515B 60U8H MUD 4	0.0017	0.0000	0.282507	0.000015
150515B 60U8H MUD 4	0.0016	0.0000	0.282490	0.000017
150515B 60U8H MUD 4	0.0016	0.0000	0.282490	0.000014
150515B 60U8H MUD 4	0.0018	0.0001	0.282517	0.000018
150515B 60U8H MUD 4	0.0018	0.0001	0.282506	0.000015

150515B 60U8H MUD 4	0.0015	0.0000	0.282532	0.000015
150515B 60U8H MUD 4	0.0013	0.0000	0.282526	0.000018
150515B 60U8H MUD 4	0.0017	0.0000	0.282528	0.000017
150515B 60U8H MUD 4	0.0015	0.0000	0.282521	0.000018
150515B 60U8H MUD 5	0.0018	0.0001	0.282527	0.000017
150515B 60U8H MUD 5	0.0017	0.0000	0.282531	0.000015
150515B 60U8H MUD 5	0.0022	0.0001	0.282493	0.000017
150515B 60U8H MUD 3	0.0013	0.0000	0.282518	0.000018
150515B 60U8H MUD 3	0.0014	0.0000	0.282516	0.000018
150515B 60U8H MUD 3	0.0010	0.0000	0.282514	0.000016
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150515B 60U8H MUD 3	0.0015	0.0000	0.282499	0.000018
150515B 60U8H MUD 3	0.0009	0.0000	0.282503	0.000018
150515B 60U8H MUD 3	0.0018	0.0001	0.282502	0.000016
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150515B 60U8H MUD 3	0.0018	0.0001	0.282511	0.000016
150515B 60U8H MUD 4	0.0018	0.0001	0.282548	0.000017
20150515B 44U8H MUD	0.0010	0.0000	0.282511	0.000022
20150515B 44U8H MUD	0.0011	0.0000	0.282497	0.000023
20150515B 44U8H MUD	0.0009	0.0000	0.282511	0.000022
20150515B 44U8H MUD	0.0008	0.0000	0.282523	0.000022
20150515B 44U8H MUD	0.0015	0.0000	0.282519	0.000025
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20150515B 44U8H MUD	0.0006	0.0000	0.282506	0.000022
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20150515B 44U8H MUD	0.0004	0.0000	0.282525	0.000022
20150515B 44U8H MUD	0.0010	0.0000	0.282517	0.000023
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20150515B 44U8H MUD	0.0013	0.0000	0.282519	0.000024
20150515B 44U8H MUD	0.0013	0.0000	0.282527	0.000025
20150515B 44U8H MUD	0.0009	0.0000	0.282498	0.000026
20150515B 44U8H MUD	0.0015	0.0000	0.282497	0.000018
20150515B 44U8H MUD	0.0010	0.0000	0.282527	0.000025
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20150515B 44U8H MUD	0.0014	0.0000	0.282470	0.000025
20150515B 60U8H MUD	0.0018	0.0001	0.282509	0.000015
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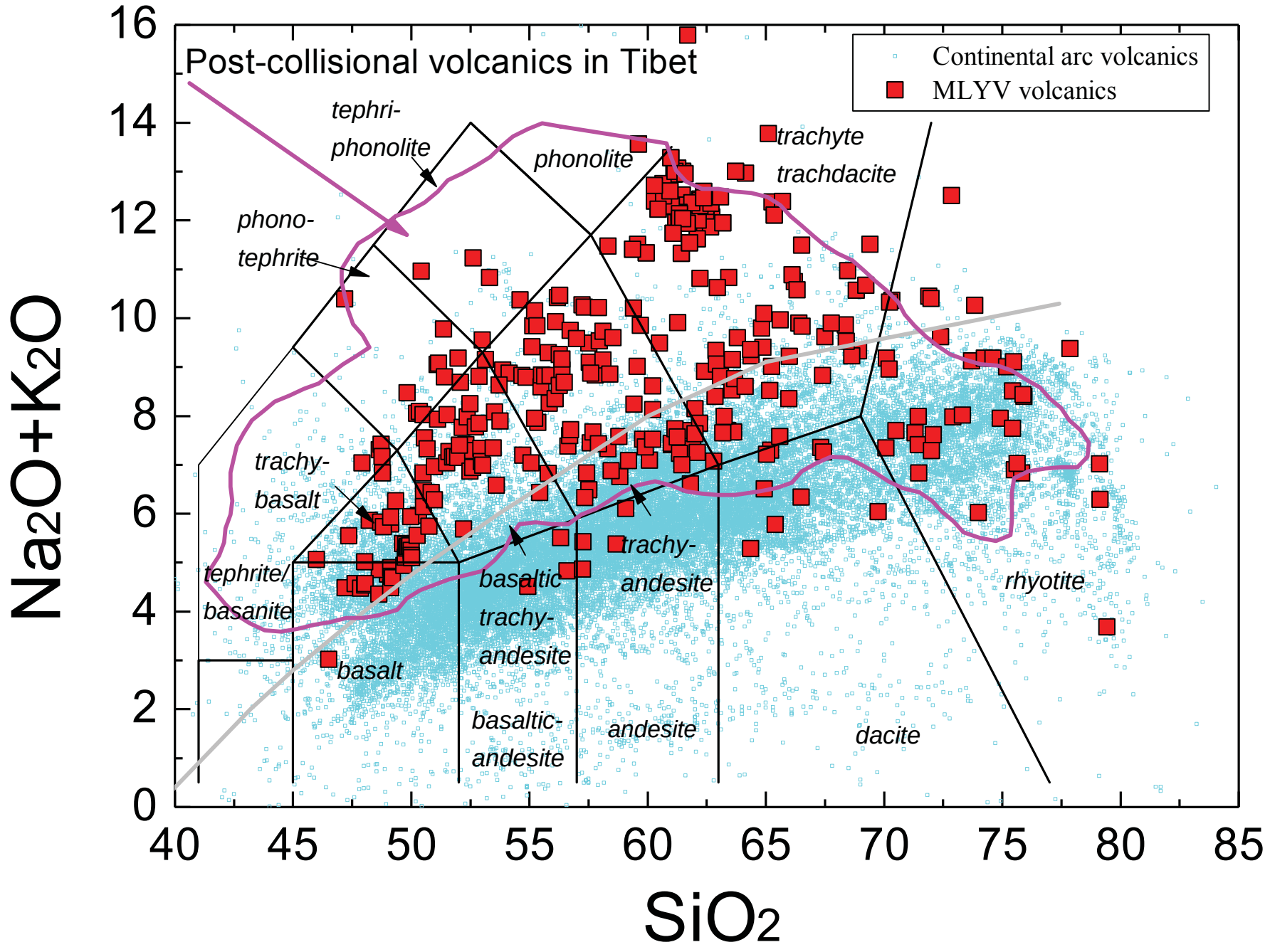
20150516 60U8H MUD (	0.0017	0.0000	0.282502	0.000014
20150516 60U8H MUD (	0.0017	0.0000	0.282518	0.000015
20150516 60U8H MUD (	0.0014	0.0000	0.282529	0.000015
20150516 60U8H MUD (	0.0013	0.0000	0.282531	0.000017
20150516 60U8H MUD (	0.0016	0.0000	0.282500	0.000016
20150516 60U8H MUD (	0.0014	0.0000	0.282500	0.000014
20150516 60U8H MUD (	0.0019	0.0001	0.282518	0.000016
20150516 60U8H MUD (	0.0017	0.0000	0.282549	0.000019
20150516 60U8H MUD (	0.0019	0.0001	0.282534	0.000018
20150516 60U8H MUD I	0.0019	0.0001	0.282511	0.000017
20150516 60U8H MUD I	0.0018	0.0001	0.282517	0.000020
20150516 60U8H MUD I	0.0015	0.0000	0.282531	0.000020
20150516 60U8H MUD I	0.0016	0.0000	0.282505	0.000021
20150516 60U8H MUD I	0.0027	0.0001	0.282496	0.000018
20150516 60U8H MUD I	0.0019	0.0001	0.282514	0.000018
20150516 60U8H MUD I	0.0012	0.0000	0.282529	0.000022
20150516 60U8H MUD I	0.0013	0.0000	0.282531	0.000027
20150516 60U8H MUD I	0.0014	0.0000	0.282533	0.000023
20150516B 60U8H MUD	0.0012	0.0000	0.282497	0.000027
20150516B 60U8H MUD	0.0011	0.0000	0.282528	0.000026
20150516B 60U8H MUD	0.0007	0.0000	0.282535	0.000023
20150516B 60U8H MUD	0.0013	0.0000	0.282536	0.000023
20150516B 60U8H MUD	0.0016	0.0000	0.282485	0.000030
20150516B 60U8H MUD	0.0012	0.0000	0.282493	0.000029
20150516B 60U8H MUD	0.0008	0.0000	0.282500	0.000026
20150516B 60U8H MUD	0.0016	0.0000	0.282493	0.000025
20150516B 60U8H MUD	0.0011	0.0000	0.282501	0.000018
20150516B 60U8H MUD	0.0012	0.0000	0.282526	0.000020
20150516B 60U8H MUD	0.0017	0.0000	0.282525	0.000018
20150516B 60U8H MUD	0.0008	0.0000	0.282513	0.000020


Post-collisional volcanics in Tibet
Continental arc volcanics
MLYV volcanics
tephri-
phonolite
phonolite
trachyte
trachdacite
phono-
tephrite
trachy-
basalt
tephrite/
basanite
basalt
basaltic
trachy-
andesite
basaltic-
andesite
trachy-
andesite
andesite
rhyotite
dacite
Na2O+K2O
SiO2
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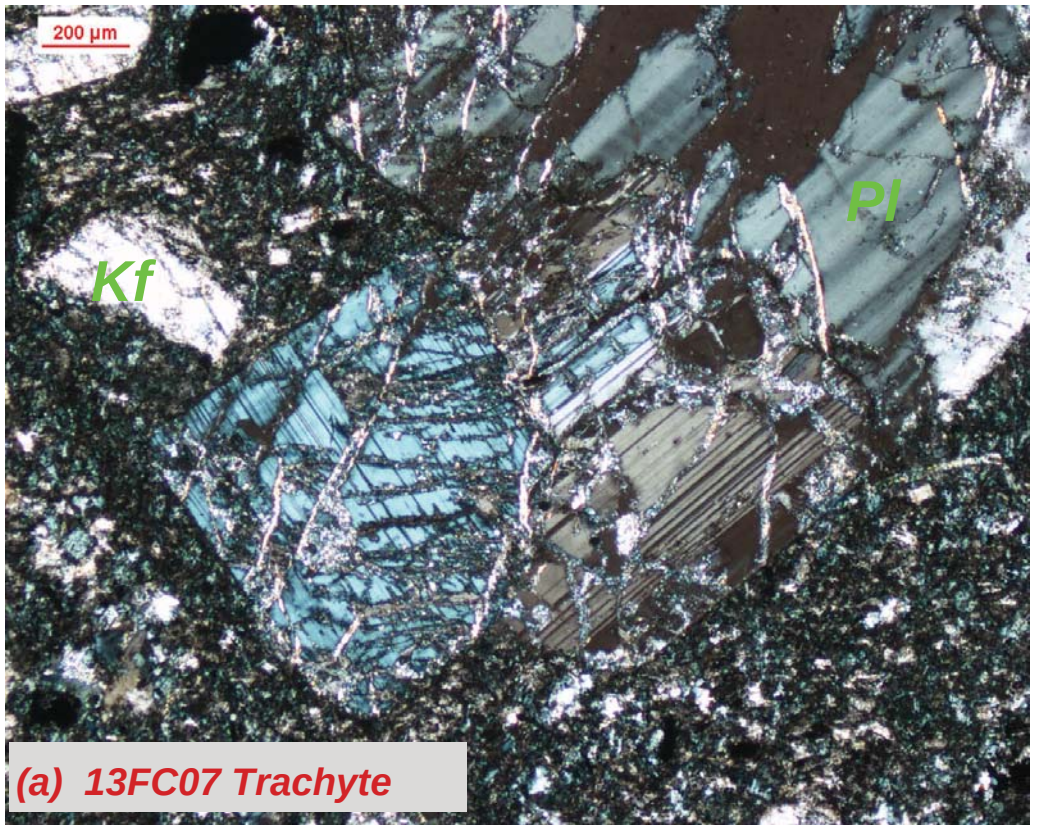
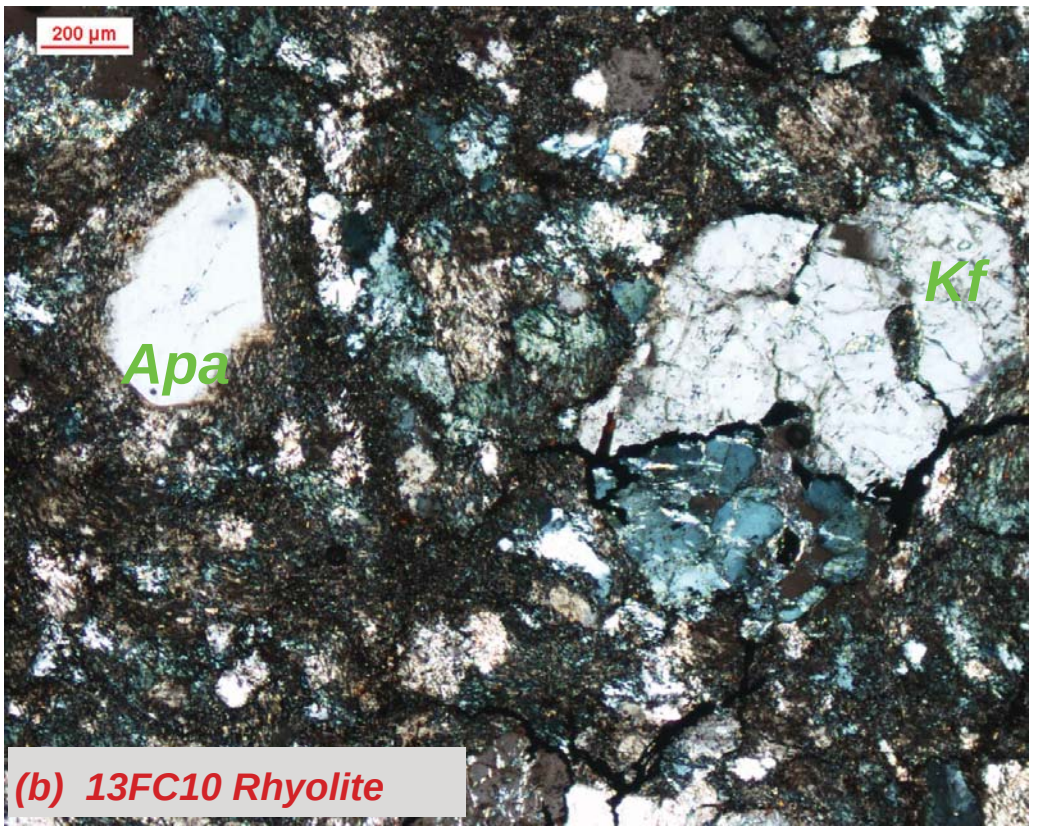
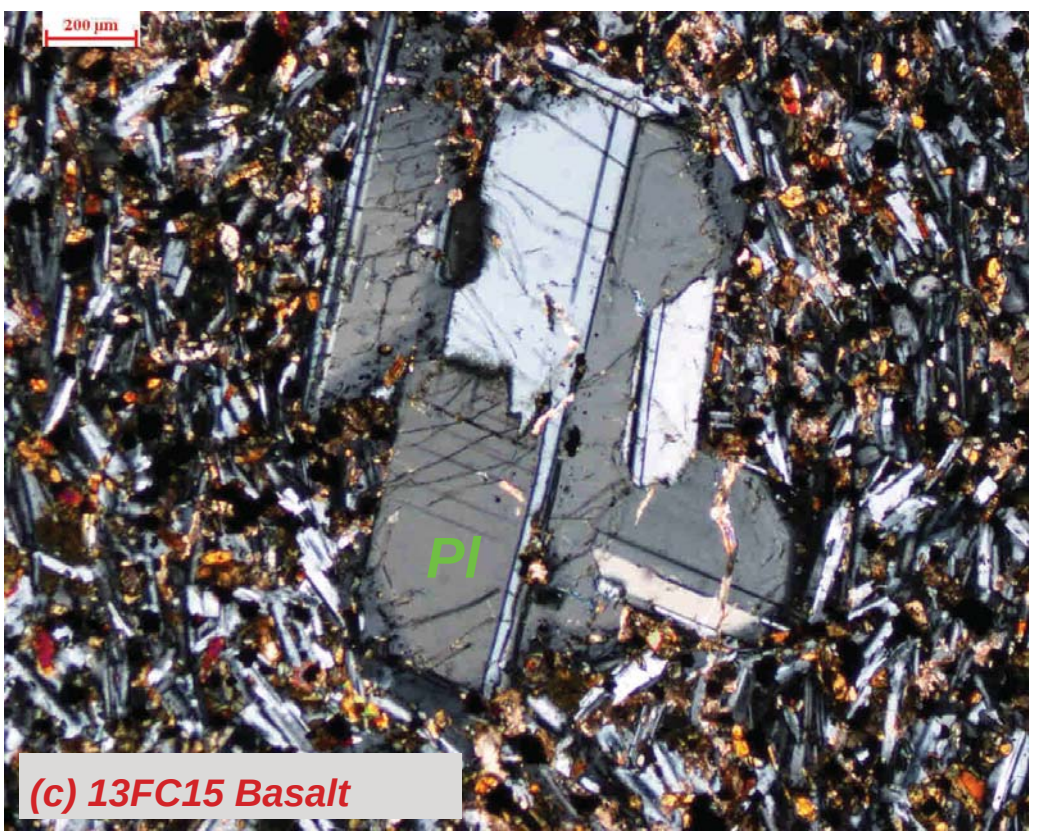
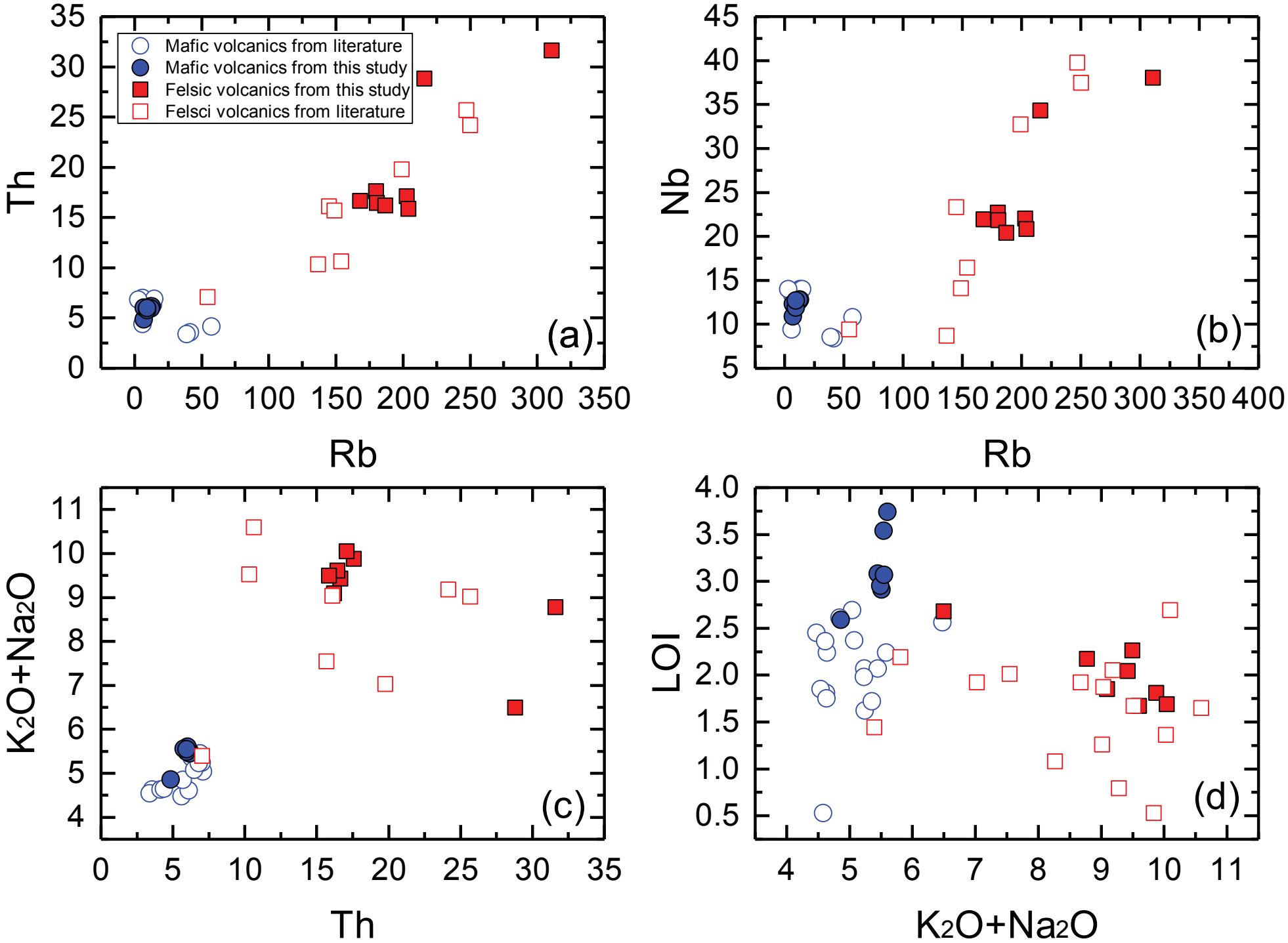

200 µm
Pl
Kf
(a) 13FC07 Trachyte


200 µm
Kf
Apa
(b) 13FC10 Rhyolite


200 µm
Pl
(c) 13FC15 Basalt

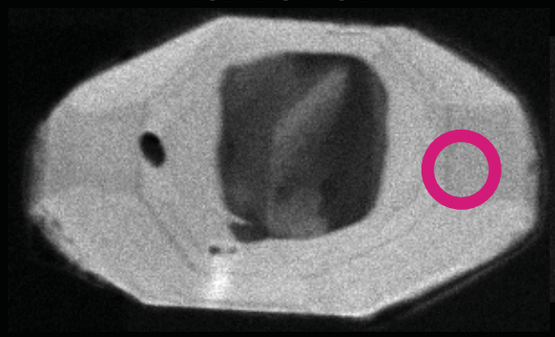

200 µm
Pl
(d) 13FC17 Basalt


Mafic volcanics from literature
Mafic volcanics from this study
Felsic volcanics from this study
Felsci volcanics from literature
Th
Rb
(a)
Nb
Rb
(b)
K2O+Na2O
Th
(c)
LOI
K2O+Na2O
(d)

200um

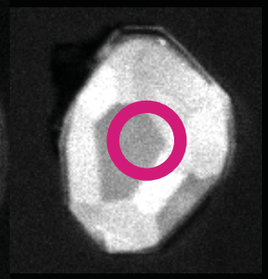
Trachytes

13FC04-01



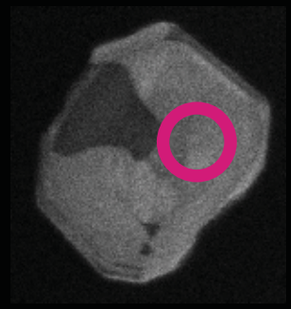
128/7.3/-14.4

13FC07-29



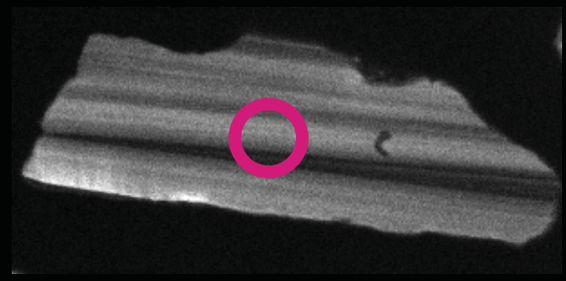
134/7.0/-8.5

13FC07-27



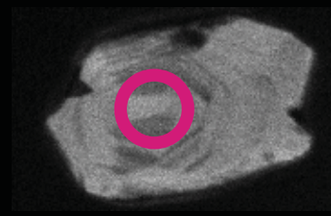
124/7.2/-7.7

13FC09-15



124/7.1/_

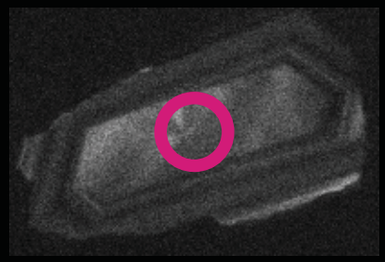
13FC09-26



126/7.4/-9.7

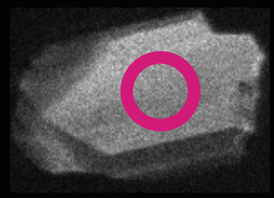
Rhyolites

13FC10-01



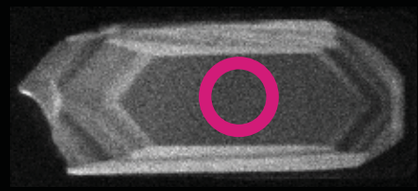
126/7.1/-9.1

13FC10-03



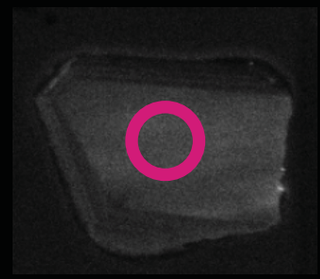
130/6.8/-4.8

13FC10-10



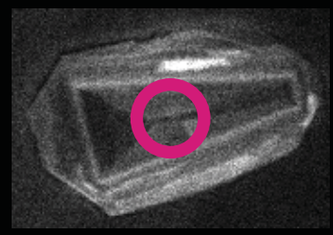
127/7.8/-16.5

13FC10-21



128/7.0/-8.5

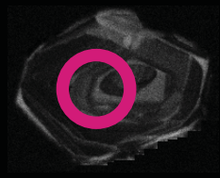
13FC10-25



128/6.6/-7.0

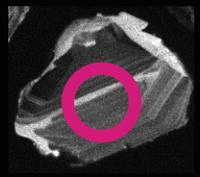
Mafic rocks

13FC12-07



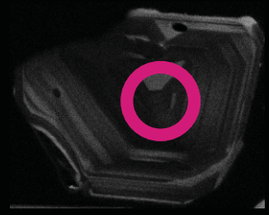
125/_/_

13FC13-04



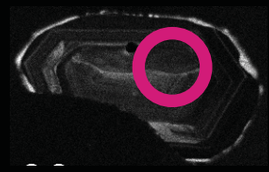
139/_/-9.1

13FC15B-01



125/_/-7.2

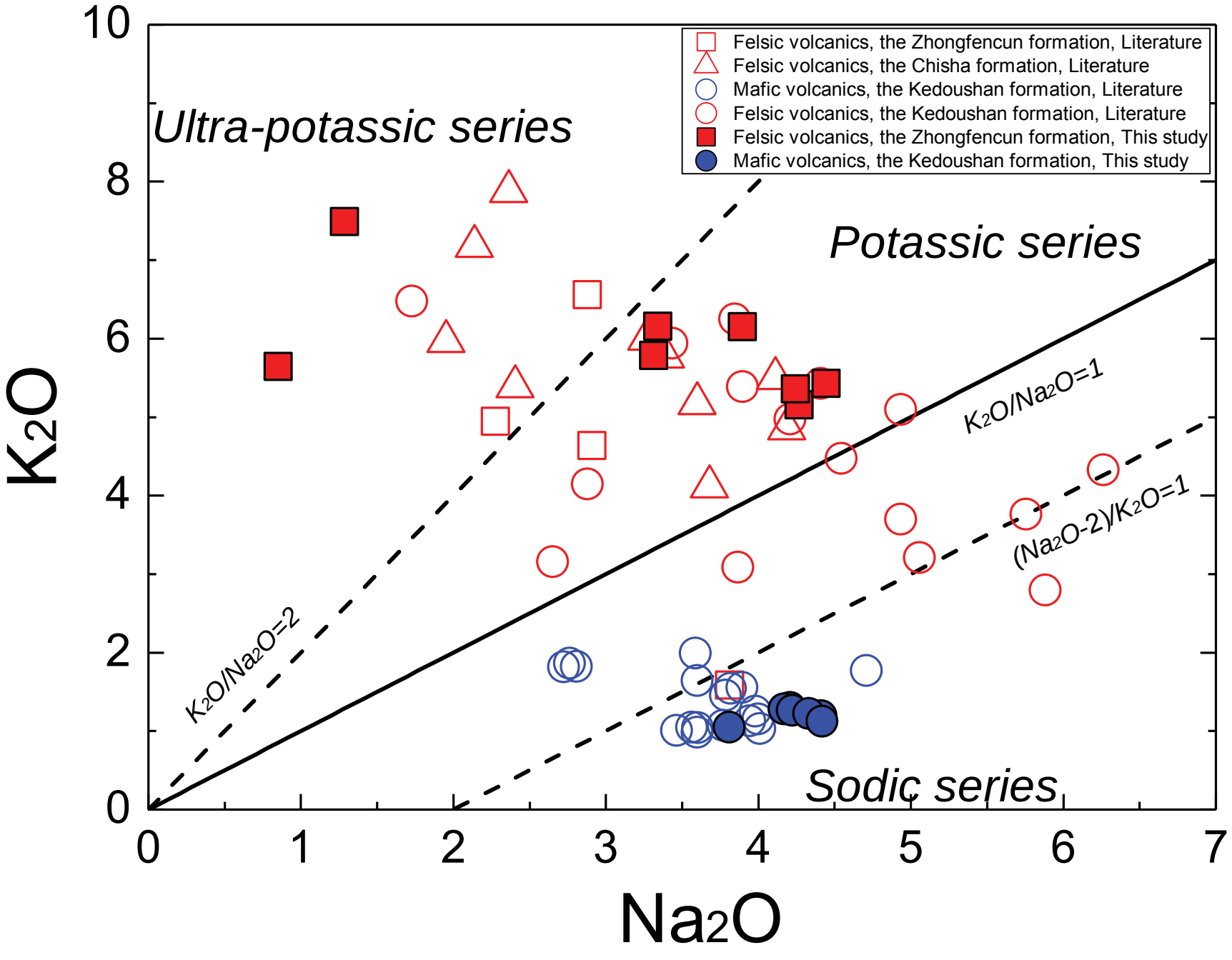
13FC16-03



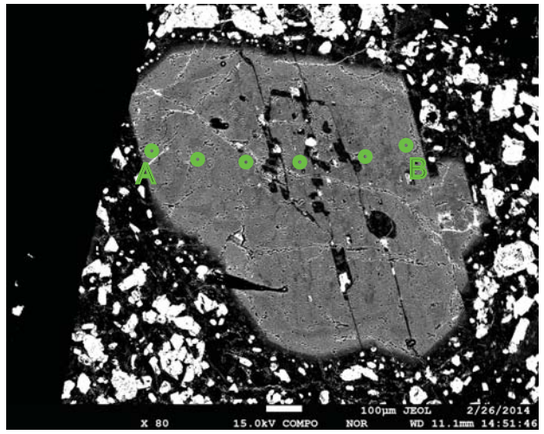
132/_/_

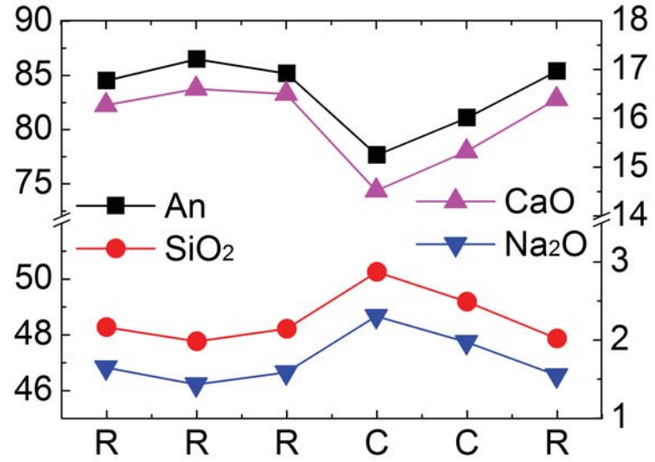
13FC17-03

137/_/-4.2

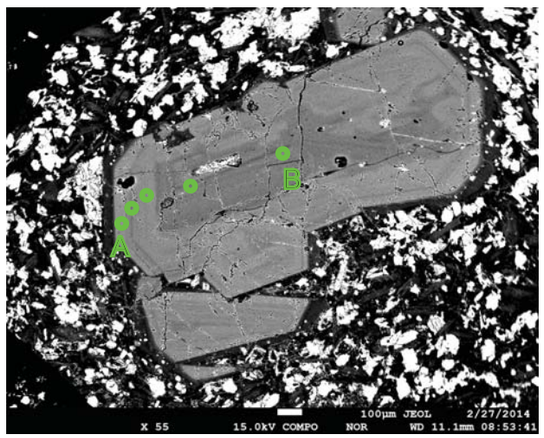

Felsic volcanics, the Zhongfencun formation, Literature
Felsic volcanics, the Chisha formation, Literature
Mafic volcanics, the Kedoushan formation, Literature
Felsic volcanics, the Kedoushan formation, Literature
Felsic volcanics, the Zhongfencun formation, This study
Mafic volcanics, the Kedoushan formation, This study
Ultra-potassic series
Potassic series
Sodic series
K2O/Na2O=2
K2O/Na2O=1
(Na2O-2)/K2O=1
K2O
Na2O
0
2
4
6
8
10
0
1
2
3
4
5
6
7

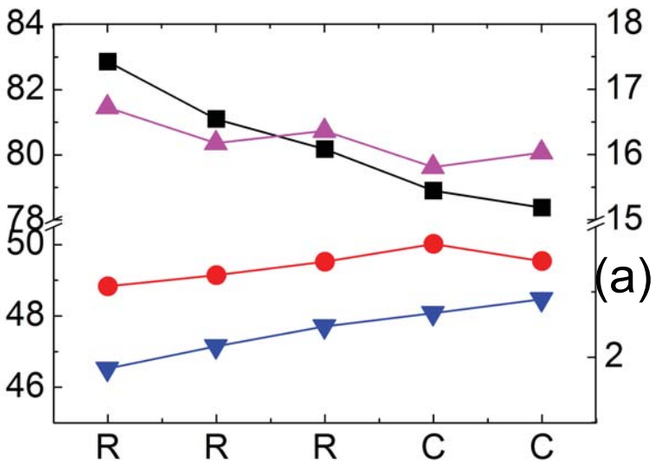
(a) 13FC14-5



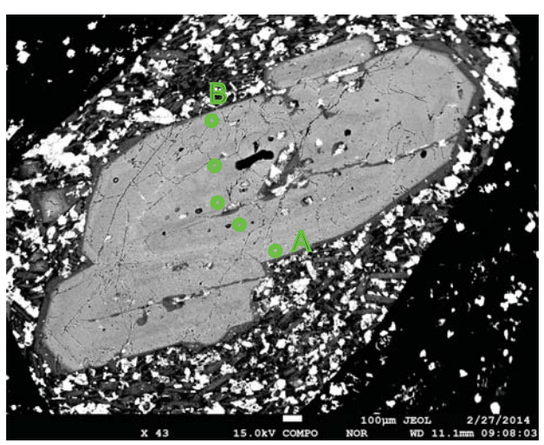


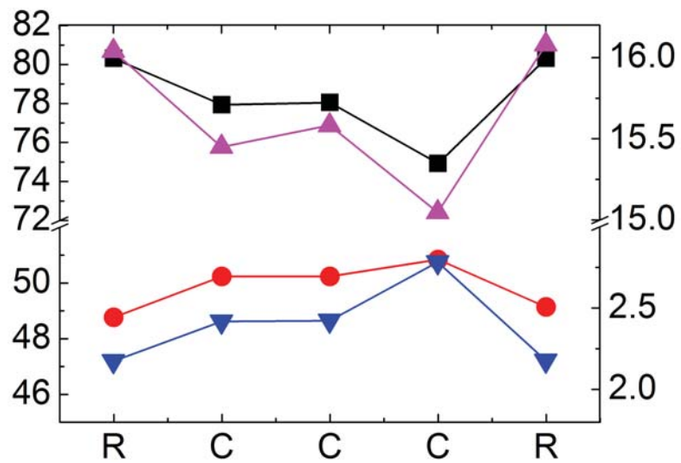
(b) 13FC15A-4



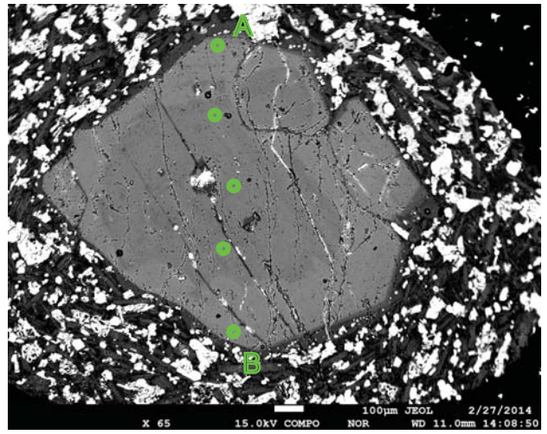


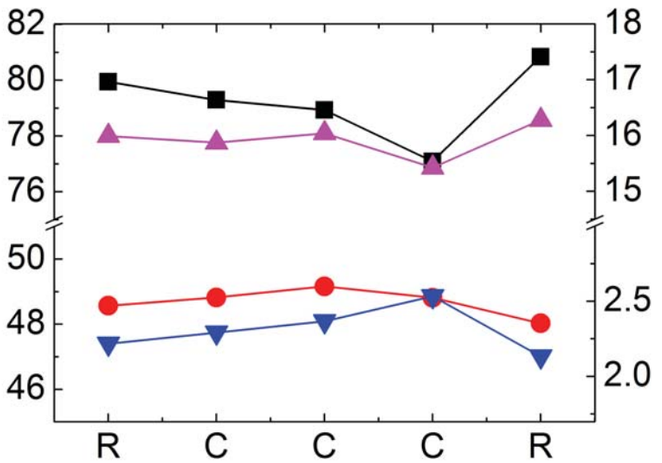
(c) 13FC15A-9



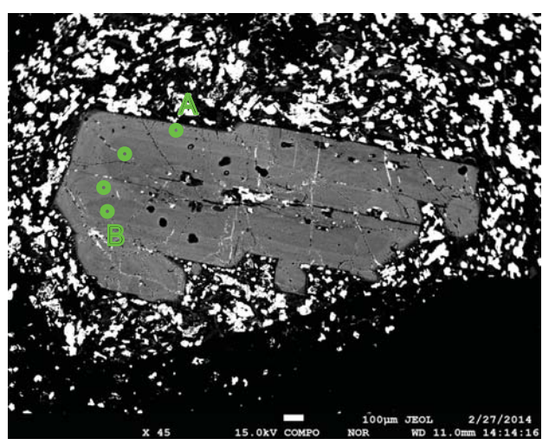


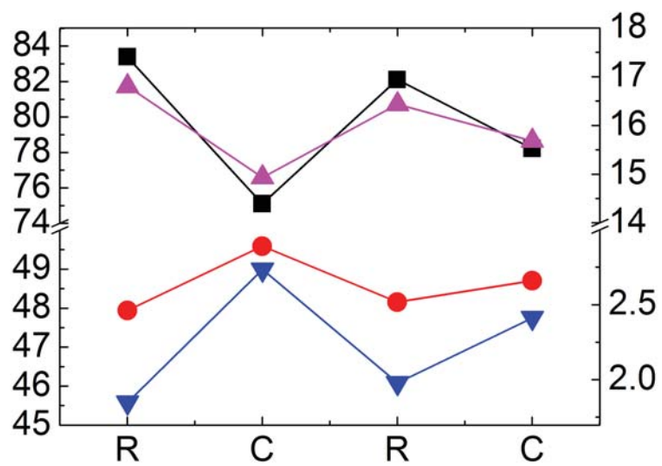
(d) 13FC17-1



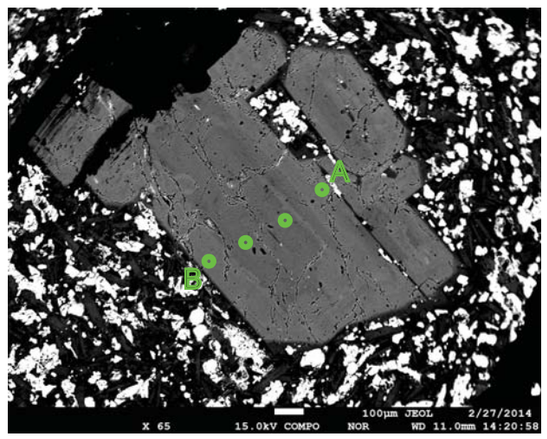


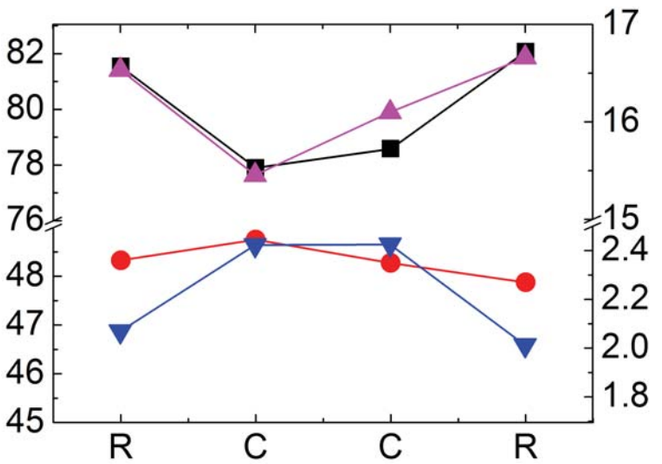
(e) 13FC17-3

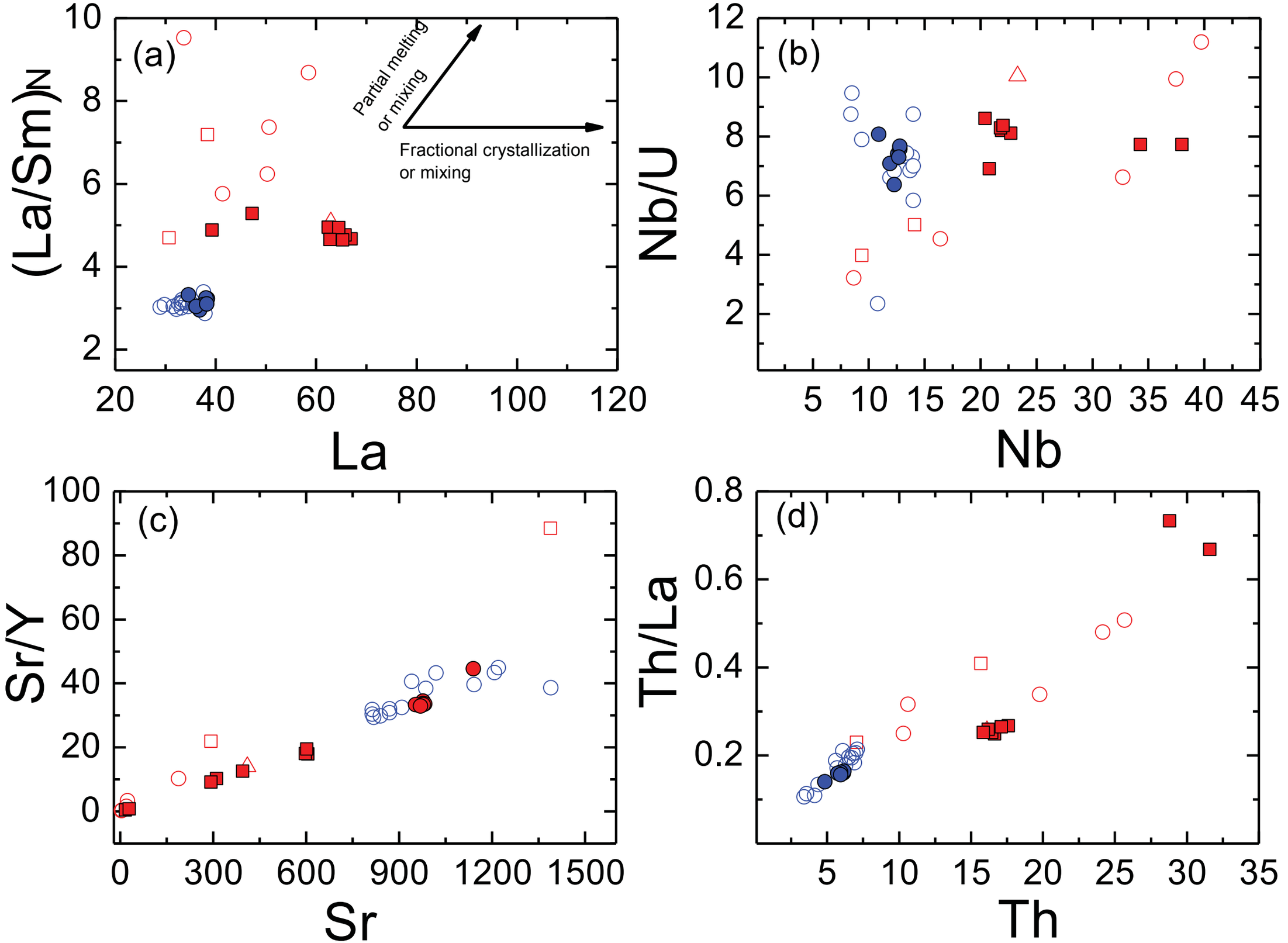


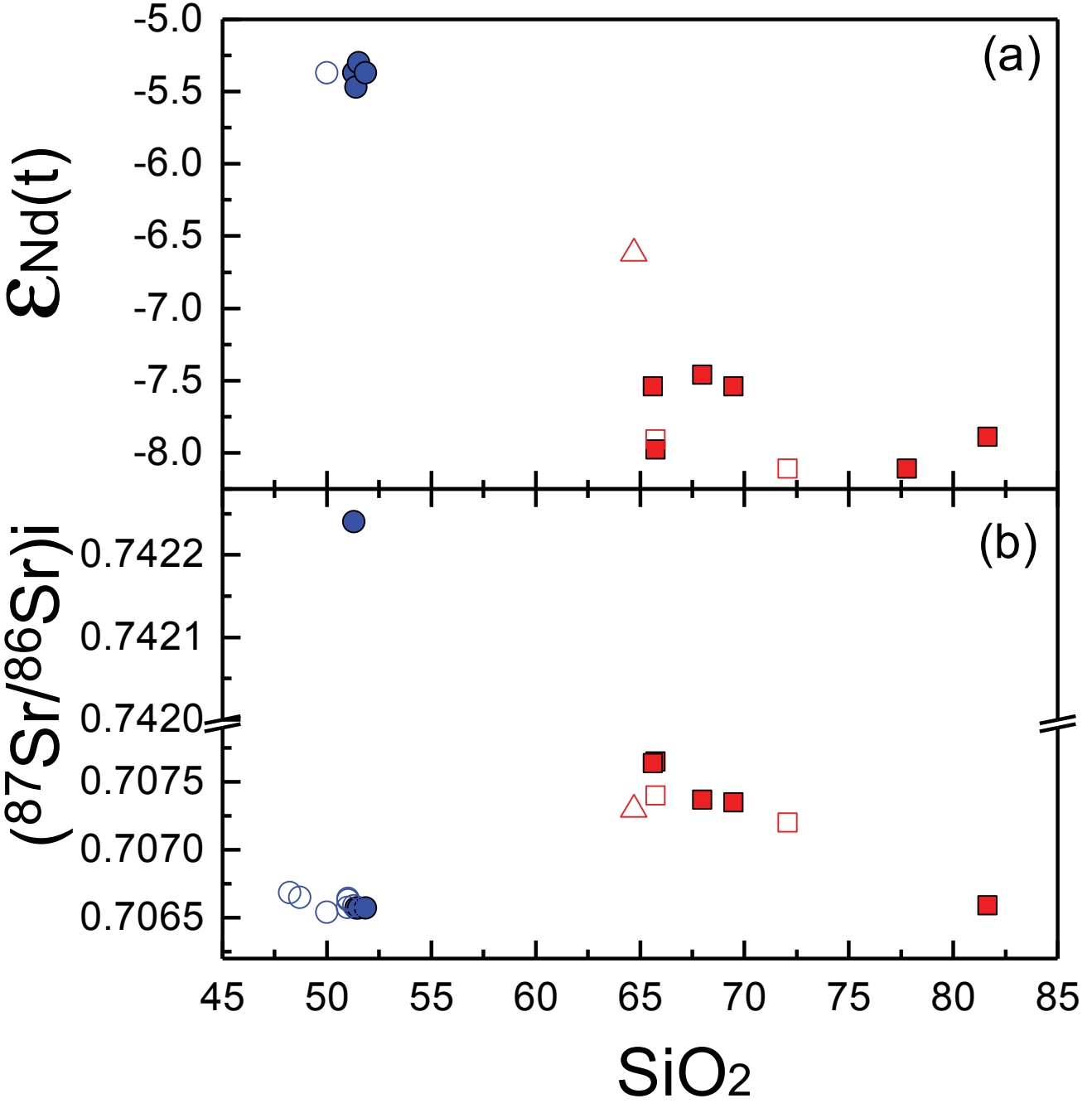


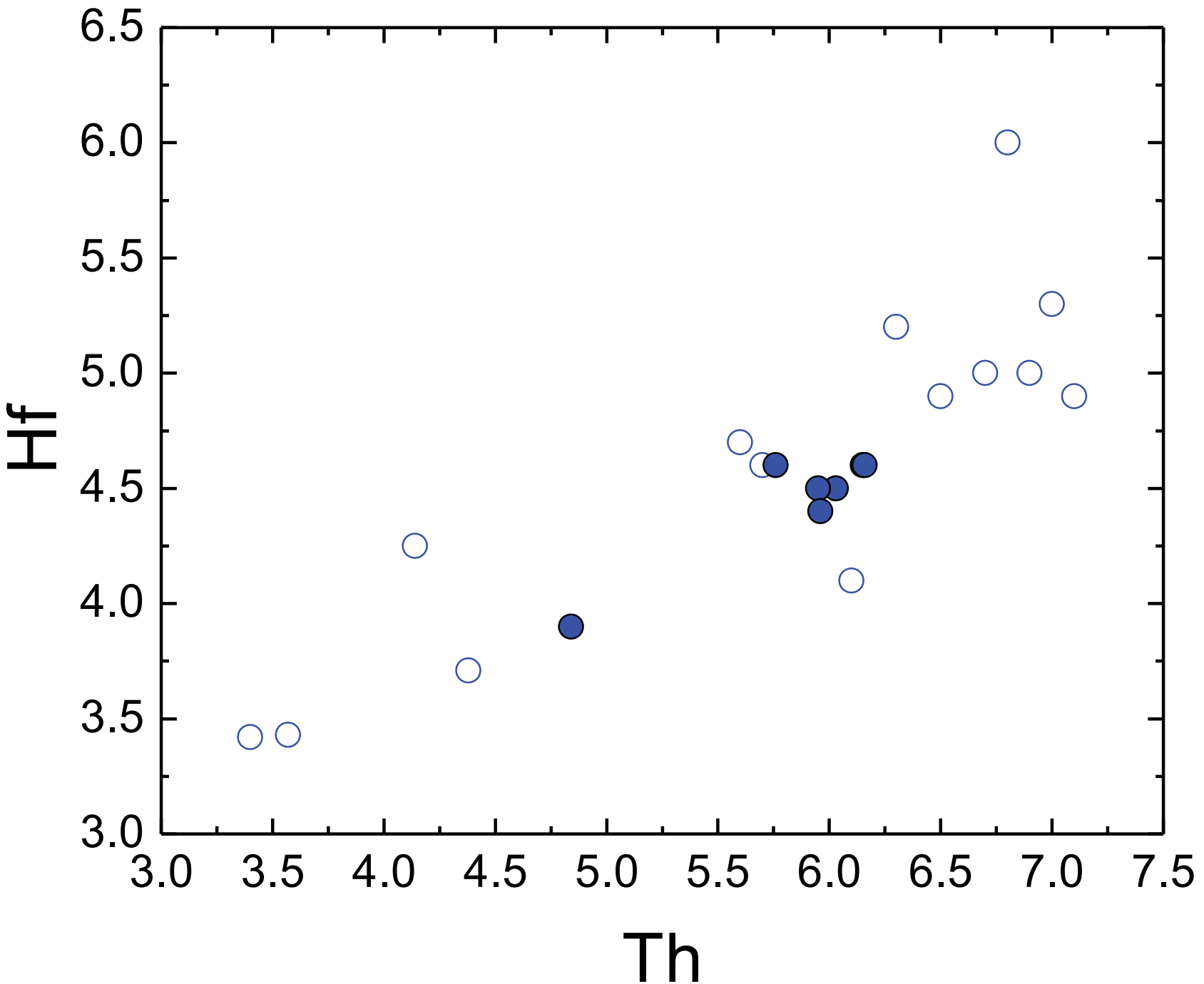
(f) 13FC17-8






(a)
(La/Sm)N
La
Partial melting
or mixing
Fractional crystallization
or mixing
(b)
Nb/U
Nb
(c)
Sr/Y
Sr
(d)
Th/La
Th


(a)
(b)
$\varepsilon_{Nd}(t)$
$(^{87}Sr/^{86}Sr)i$
-5.0
-5.5
-6.0
-6.5
-7.0
-7.5
-8.0
0.7422
0.7421
0.7420
0.7075
0.7070
0.7065
45
50
55
60
65
70
75
80
85
SiO_2


Hf
Th
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5