

Supplementary Materials: Mesozoic High- and Low-SiO₂ Adakites and A-Type Granites in the Lower Yangtze River Belt, Eastern China: Implications for Petrogenesis and Metallogeny

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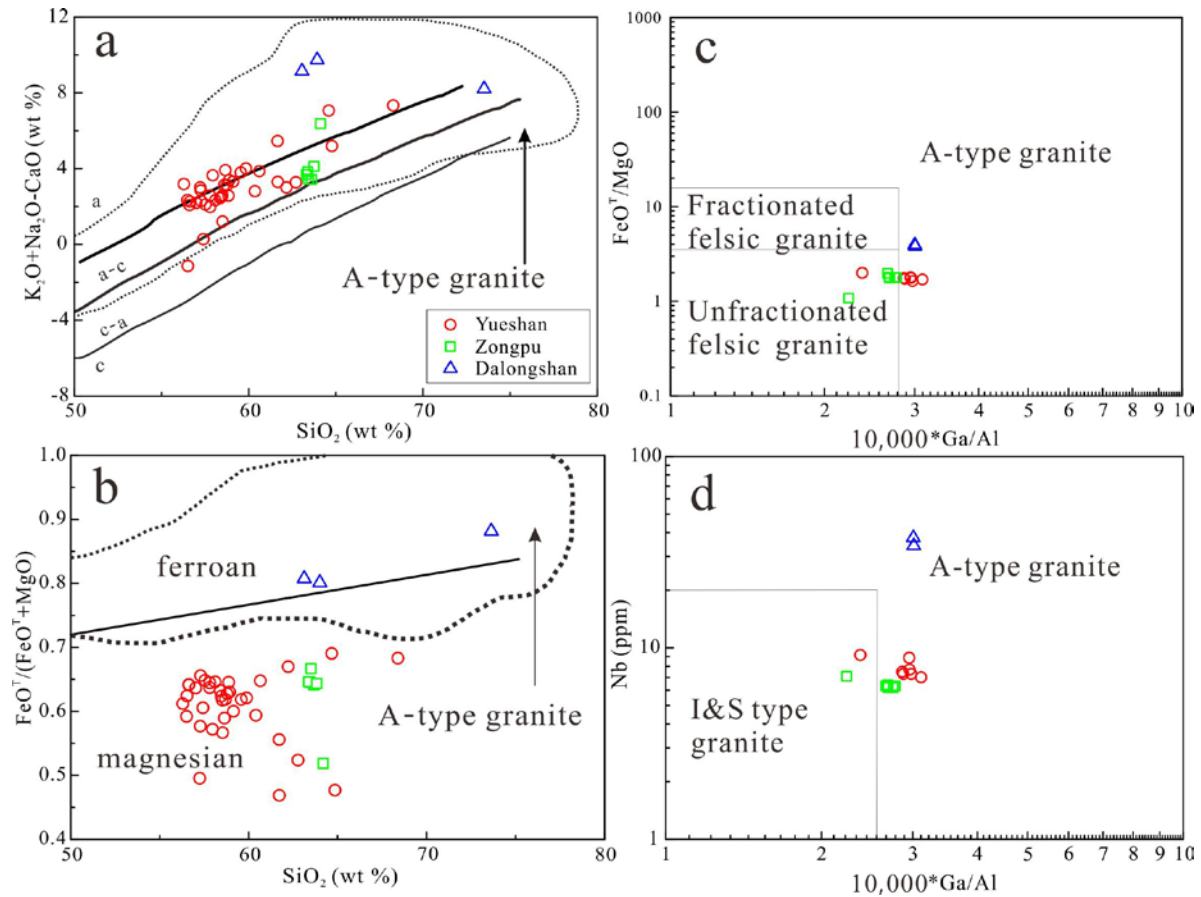


Figure S1. Discrimination diagrams of A-type granites (modified after [82]).

Table S1. Published data for major and trace element compositions of the Yueshan, Zongpu and Dalongshan intrusions in the Anqing orefield.

Samples	Intrusion	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	CaO	MgO	Na ₂ O	K ₂ O	TiO ₂	MnO	P ₂ O ₅	H ₂ O	LOI	Total	K ₂ O/Na ₂ O	#Mg	Reference
-	Dalongshan	73.69	12.64	1.89	0.40	0.63	0.32	3.23	5.38	0.30	0.06	0.05	-	1.55	100.14	1.67	21.36	[48]
CH10	Yueshan	68.43	14.97	1.57	0.94	2.13	1.13	4.43	4.82	0.35	0.05	0.14	0.88	-	99.84	1.09	46.13	
CH12	Yueshan	64.71	16.31	2.04	1.37	2.88	1.49	4.71	5.02	0.49	0.08	0.22	0.68	-	100.00	1.07	45.31	
YT-1	Yueshan	60.69	16.13	2.58	2.79	4.07	2.86	4.09	3.69	0.62	0.08	0.37	1.21	-	99.18	0.90	49.93	
CYZ36	Yueshan	60.44	15.92	2.25	2.82	4.92	3.38	4.66	2.93	0.65	0.07	0.37	0.62	-	99.03	0.63	55.43	
CYZ25	Yueshan	59.62	16.40	2.53	2.73	4.56	3.16	5.05	3.15	0.66	0.06	0.38	0.70	-	99.00	0.62	52.94	[49]
CYZ02	Yueshan	58.56	16.45	2.46	2.96	5.32	3.28	5.22	2.55	0.72	0.07	0.44	0.96	-	98.99	0.49	53.05	
YQ14	Yueshan	58.15	16.46	2.92	3.16	5.44	3.26	4.65	2.99	0.73	0.06	0.41	1.30	-	99.53	0.64	50.10	
CYZ208	Yueshan	57.84	16.51	2.78	3.14	5.60	3.30	5.16	2.88	0.74	0.06	0.43	0.62	-	99.06	0.56	51.05	
YQ15	Yueshan	57.58	16.43	3.15	3.01	5.66	3.26	4.65	2.99	0.78	0.07	0.43	1.36	-	99.37	0.64	49.86	
A-16	Yueshan	59.92	16.98	1.86	2.39	4.47	2.54	4.83	3.49	0.87	0.89	0.48	0.21	0.84	99.77	0.72	52.70	
A-17	Yueshan	57.33	16.37	2.21	3.21	5.88	2.81	4.85	3.19	0.74	0.79	0.42	0.55	1.78	100.13	0.66	49.07	
A-13	Yueshan	58.96	16.91	1.97	2.33	5.19	2.47	5.06	3.37	0.72	0.69	0.37	0.52	1.41	99.97	0.67	51.77	
A-8	Yueshan	59.18	17.21	2.08	2.89	4.49	3.24	4.85	2.81	0.64	0.76	0.43	0.41	1.31	100.30	0.58	54.81	
A-1	Yueshan	64.89	16.73	0.65	1.51	3.18	2.31	4.52	3.67	0.67	0.63	0.38	0.26	1.25	100.65	0.81	66.28	
A-3	Yueshan	57.85	16.48	2.32	2.78	6.38	2.76	4.67	3.56	0.70	0.71	0.41	0.29	0.92	99.83	0.76	50.27	
A-10	Yueshan	58.00	16.03	1.77	2.98	5.07	3.48	5.24	3.32	0.45	0.75	0.39	0.28	2.07	99.83	0.63	57.57	
A-33	Yueshan	56.33	18.12	1.99	2.45	4.87	2.75	4.57	3.34	0.49	0.69	0.31	0.19	3.53	99.63	0.73	53.62	[51]
A-23	Yueshan	61.76	14.97	1.29	1.73	4.77	3.29	4.64	3.28	0.68	0.59	0.35	0.61	2.11	100.07	0.71	66.98	
A-19	Yueshan	57.31	16.81	2.04	2.56	6.02	3.28	5.23	3.50	0.65	0.77	0.45	0.30	0.96	99.88	0.67	57.08	
A-38	Yueshan	56.56	14.85	2.59	3.91	7.89	3.85	4.03	2.65	0.66	0.75	0.50	0.27	1.39	99.90	0.66	52.37	
A-6	Yueshan	58.57	16.10	1.94	2.59	6.27	3.37	4.13	3.24	0.73	0.75	0.29	0.32	1.52	99.82	0.78	58.08	
A-12	Yueshan	56.54	16.45	1.94	2.71	5.66	3.13	4.73	3.14	0.78	0.69	0.51	0.23	3.22	99.73	0.66	55.60	
A-2	Yueshan	62.81	15.84	1.07	1.90	4.75	2.63	4.46	3.42	0.91	0.76	0.40	0.22	0.91	100.08	0.77	62.09	

A-24	Yueshan	58.67	16.54	2.03	2.37	5.15	2.98	4.94	3.20	0.58	0.71	0.49	0.24	1.73	99.63	0.65	55.87	[52]					
A-9	Yueshan	61.75	17.21	1.82	2.05	3.00	2.99	4.56	3.71	0.54	0.70	0.26	0.28	0.85	99.72	0.81	59.11						
A214	Yueshan	58.73	15.92	2.50	2.52	5.31	3.01	5.87	3.20	0.70	0.09	0.45	-	1.63	99.93	0.55	52.94						
A221	Yueshan	58.83	15.92	1.27	3.64	4.97	2.91	5.42	2.54	0.77	0.07	0.50	-	2.72	99.56	0.47	52.03						
A212	Yueshan	57.46	14.45	1.84	2.37	7.44	2.68	4.82	2.80	0.73	0.06	0.47	-	4.63	99.75	0.58	54.27						
A219	Yueshan	57.28	16.02	0.93	2.39	7.08	3.31	5.89	4.05	0.73	0.07	0.49	-	1.49	99.73	0.69	64.65						
Samples	Ce	Co	Cr	Eu	Gd	Hf	Ho	La	Lu	Nb	Nd	Pr	Rb	Sc	Sm	Sr	Tb	Th	Tm	Y	Yb	Zr	Reference
CYZ36	86.01	18	48	1.57	4.05		0.45	47.99	0.16	12.3	37.62	10.9	n.a.	10.49	6.59	1498	0.56	n.a.	0.2	11.42	1.09	109	[49]
CYZ25	90.33	19	39	1.66	4.26		0.48	49.38	0.16	10.1	38.23	11.43	63	9.96	6.89	1445	0.6	40	0.21	11.44	1.11	160	
CYZ02	95.17	18	27	1.75	4.43		0.48	50.94	0.16	13.5	41.17	12.07	40	9.99	7.31	1449	0.64	n.a.	0.22	12.19	1.09	138	
CYZ08	95.56	22	36	1.93	5.21		0.46	57.56	0.15	10	47.81	11.64	50	10.84	7.56	1721	0.63	6	0.17	11.52	1.14	152	
CYZ10	107.98	17	25	1.8	4.77		0.55	56.85	0.2	22.5	45.43	13.52	n.a.	8.99	7.67	1486	0.67	n.a.	0.26	13.95	1.45	175	
CYZ33	100.44	25	49	1.88	5.17		0.44	61.48	0.15	10	50.28	12.59	65	9.97	7.81	1623	0.61	34	0.21	11.36	1.1	190	
RH-4	91.08	20	79	1.64	4.29		0.5	50.28	0.17	13	38.56	11.19	31	11.63	6.62	1472	0.6	9	0.21	12.36	1.13	114	[51]
CH13	98.89	16	23	1.84	4.61		0.52	53.58	0.18	15	43.83	12.41	50	10.57	7.32	1390	0.67	12	0.22	12.76	1.16	181	
A-13		16	47			4.2				7.8			52	11.1		1640		11.1				123	
A-8		16.2	61			1.6				10			53	11.2		1566		12.2				21	
A-1		16.3	61			5.6				9.2			59	11.4		1646		14.2				174	
A-3		16.2	103			3.7				6.8			54	10		1666		11.4				107	
A-10		14.3	66			1.41				6.6			52	9.3		1507		11.2				24	
A-23		12.1	59			2.9				6.3			45	11.1		1361		9.1				71	
A-2		16	114			4.3				11.3			54	11.2		1519		12				147	
A-24		17	62			4				7.8			52	12		1617		11.2				128	
A-14		15	40			1.52				9.2			60	9.9		1633		13.3				21	
A-4		16.1	43			1.42				7.9			54	118		1589		11.1				21	
CKW1A-9		16.1	33			4.7				7.5			55	12.4		1545		11.3				152	

CKW3A-6	15.3	36				2.8				7.6		54	10.1		1734	12				82			
CKW1A-7	16.2	55				5.1				7.4		54	11		1577	11				165			
CKW3A-7	16.4	52				2.1				7.4		60	9.9		2663	11.2				51			
1	76.9	6064	14.85	1.38	4.08		0.37	42.5	0.14	18	31.5	7.14	131.6	5.19	5.13	969	0.42		0.11	7.96	0.65	222	
2	95.56	18	27	1.93	5.21		0.46	57.56	0.15	13.5	47.81	11.64	40	9.99	7.56	1449	0.63		0.17	11.52	1.14	138	
3	112.2	22	36	1.59	4.68		0.52	50.02	0.17	10	45.45	13.66	50	10.84	8.01	1721	0.68	40		13.21	1.21	160	
4	93.11	17	25	1.62	3.96		0.44	49.05	0.14	22.5	37.03	11.34		8.99	6.59	1485	0.58			10.96	0.97	175	
5	107.98	19	39	1.8	4.77		0.55	56.85	0.2	10	45.43	13.52	63	9.96	7.67	1445	0.67	40	0.26	13.95	1.45	160	
6	90.33	15.5	132.71	1.66	4.26		0.48	49.38	0.16	14	38.23	11.43	27.5	10.63	6.89	1296	0.6		0.21	11.44	1.11	153	
7	100.44	15.14	112.25	1.88	5.17		0.44	61.48	0.15	15	50.28	12.59	84.5	11.16	7.81	1043	0.61		0.21	11.36	1.1	147	[50]
8	86.01	25	49	1.57	4.05		0.45	47.99	0.16	10	37.62	10.9	64	9.97	6.59	1623	0.56	34	0.2	11.42	1.09	190	
9	91.08	18	48	1.64	4.29		0.5	50.28	0.17	12.3	38.56	11.19		10.49	6.62	1498	0.6		0.21	12.36	1.13	109	
10	98.89	20	79	1.84	4.61		0.52	53.58	0.18	13	43.83	12.41	31	11.63	7.32	1472	0.67	9	0.22	12.76	1.16	114	
11	89.4	16	12	1.59	4.76		0.37	46.7	<0.1	15	38.9	8.83	50	10.57	6.25	1390	0.44	12	<0.1	9.47	0.68	181	
12	95.17	16	72	1.75	4.43		1.48	50.94	0.16		41.17	12.07	68		7.31	1604	0.64		0.22	12.19	1.09		
13	84.2			1.56				41.8		2	32.5		62		6.93	1658	0.55	9.74				123	
A214	111.77			2.11	5.43	3.01	0.51	55.29	0.18	8.34	49.83	13.27	59.9		7.28	1718	0.68	13.7	0.2		1.17	69.6	
A221	117.96			2.19	5.69	3.94	0.54	62.01	0.19	7.63	51.76	14.05	50.9		7.45	1368	0.71	11.6	0.21		1.3	111.5	
A212	98.15			1.96	5.11	4.99	0.5	48.51	0.19	8.16	45.67	12.04	59.8		6.75	1240	0.63	12.8	0.2		1.24	136.3	[52]
A219	86.89			1.95	4.95	3.99	0.49	43.11	0.18	7.96	42.17	10.77	73.2		6.36	1712	0.62	11.2	0.19		1.19	109.1	

Table S2. Zircon LA-ICPMS U-Pb data for granitoids in the Anqing orefield.

Sample/Spot	Isotopic Ratios				Age (Ma)				Concordance
	²⁰⁷ Pb/ ²³⁵ U	1σ	²⁰⁶ Pb/ ²³⁸ U	1σ	²⁰⁷ Pb/ ²³⁵ U	1σ	²⁰⁶ Pb/ ²³⁸ U	1σ	
03YS-16									
1	0.1477	0.0119	0.0231	0.0005	139.84	10.57	147.21	3.35	94%
2	0.1106	0.0070	0.0207	0.0004	106.49	6.38	131.96	2.41	78%
3	0.1229	0.0086	0.0210	0.0004	117.70	7.79	133.82	2.46	87%
4	0.1302	0.0088	0.0212	0.0004	124.29	7.92	135.51	2.83	91%
5	0.3035	0.0250	0.0210	0.0008	269.13	19.49	133.84	4.89	32%
6	0.3550	0.0303	0.0326	0.0012	308.45	22.70	206.98	7.61	60%
7	0.2977	0.0179	0.0230	0.0005	264.60	14.03	146.65	3.03	42%
8	0.1272	0.0095	0.0209	0.0004	121.62	8.53	133.64	2.55	90%
9	0.1605	0.0097	0.0217	0.0004	151.17	8.47	138.27	2.58	91%
10	0.1082	0.0070	0.0198	0.0004	104.28	6.41	126.11	2.42	81%
11	0.1941	0.0171	0.0232	0.0008	180.11	14.53	148.01	4.82	80%
12	0.5671	0.0318	0.0576	0.0010	456.15	20.62	361.25	6.08	76%
13	0.1849	0.0120	0.0221	0.0005	172.24	10.28	140.79	3.15	79%
14	0.1677	0.0148	0.0205	0.0005	157.45	12.86	131.13	2.97	81%
15	0.4017	0.0296	0.0250	0.0006	342.87	21.45	159.47	3.80	26%
16	0.1167	0.0084	0.0189	0.0004	112.09	7.66	120.65	2.60	92%
17	0.1375	0.0098	0.0195	0.0004	130.78	8.76	124.51	2.51	95%
18	0.1442	0.0103	0.0202	0.0004	136.78	9.15	129.05	2.53	94%
19	0.1282	0.0076	0.0199	0.0004	122.45	6.85	126.76	2.45	96%
20	0.4072	0.0260	0.0237	0.0005	346.88	18.73	150.89	3.22	21%
21	0.1067	0.0072	0.0198	0.0004	102.95	6.59	126.64	2.31	79%
22	0.1999	0.0139	0.0219	0.0005	185.05	11.80	139.82	2.90	72%
23	0.1674	0.0118	0.0205	0.0004	157.20	10.25	131.12	2.39	81%
24	0.1356	0.0086	0.0198	0.0004	129.16	7.66	126.39	2.36	97%
25	0.7554	0.0634	0.0266	0.0010	571.37	36.71	169.29	6.13	9%
26	0.1126	0.0082	0.0203	0.0004	108.36	7.49	129.46	2.70	82%
27	0.1486	0.0104	0.0199	0.0004	140.67	9.21	127.04	2.53	89%
28	0.2523	0.0192	0.0200	0.0004	228.48	15.59	127.89	2.84	43%
29	0.1413	0.0095	0.0198	0.0004	134.23	8.41	126.65	2.60	94%
30	0.1527	0.0105	0.0199	0.0004	144.33	9.29	127.06	2.58	87%
03ZPS02									
1	0.1632	0.0146	0.0218	0.0005	153.51	12.75	139.11	2.95	90%
2	0.1589	0.0130	0.0213	0.0004	149.71	11.36	135.99	2.60	90%
3	0.1260	0.0202	0.0218	0.0005	120.49	18.20	138.91	3.02	85%
4	0.1779	0.0145	0.0217	0.0005	166.24	12.47	138.14	2.91	81%
5	0.1748	0.0183	0.0215	0.0005	163.53	15.81	137.15	2.98	82%
6	0.1609	0.0134	0.0216	0.0004	151.45	11.74	137.70	2.62	90%
7	0.1667	0.0137	0.0199	0.0003	156.59	11.96	127.33	2.18	79%
8	0.1266	0.0191	0.0219	0.0005	121.01	17.22	139.48	3.08	85%
9	0.1719	0.0162	0.0216	0.0004	161.10	14.02	138.06	2.54	84%
10	0.1793	0.0242	0.0216	0.0003	167.48	20.86	137.49	2.12	80%
11	0.1344	0.0147	0.0217	0.0004	128.03	13.16	138.12	2.57	92%
12	0.1494	0.0103	0.0217	0.0004	141.36	9.14	138.14	2.57	97%
13	0.1544	0.0124	0.0207	0.0005	145.81	10.93	132.21	2.86	90%
14	1.2217	0.0770	0.1317	0.0021	810.55	35.18	797.62	11.85	98%
15	0.1489	0.0186	0.0217	0.0005	140.90	16.40	138.56	3.05	98%
16	0.1801	0.0127	0.0217	0.0004	168.14	10.96	138.55	2.26	80%

17	0.1414	0.0134	0.0204	0.0004	134.30	11.91	130.04	2.60	96%
18	0.1709	0.0215	0.0217	0.0006	160.23	18.67	138.40	3.52	85%
19	0.1560	0.0208	0.0215	0.0006	147.23	18.27	137.23	3.65	92%
20	0.1706	0.0213	0.0217	0.0005	159.97	18.51	138.42	3.35	85%
21	0.1202	0.0084	0.0217	0.0005	115.23	7.65	138.14	3.09	81%
22	0.1387	0.0123	0.0217	0.0005	131.89	10.98	138.08	2.90	95%
23	0.1555	0.0200	0.0217	0.0007	146.79	17.57	138.13	4.28	93%
24	0.1434	0.0124	0.0217	0.0006	136.05	11.02	138.42	3.81	98%
25	0.1233	0.0133	0.0217	0.0005	118.10	11.99	138.15	3.34	84%
26	0.1466	0.0179	0.0216	0.0005	138.93	15.81	138.01	3.30	99%
27	0.1274	0.0121	0.0217	0.0004	121.76	10.86	138.40	2.68	87%
28	0.1410	0.0116	0.0217	0.0004	133.98	10.34	138.22	2.76	96%
29	1.1971	0.0602	0.1332	0.0021	799.23	27.82	806.24	11.84	99%
30	0.1549	0.0152	0.0216	0.0006	146.21	13.39	138.00	3.68	94%
14ZP01									
1	0.1437	0.0072	0.0216	0.0002	136.36	6.40	137.98	1.49	98%
2	0.1801	0.0086	0.0218	0.0003	168.10	7.37	138.83	1.75	80%
3	0.1385	0.0054	0.0214	0.0002	131.70	4.84	136.38	1.35	96%
4	1.2273	0.0336	0.1264	0.0012	813.10	15.31	767.32	6.78	94%
5	0.1463	0.0051	0.0217	0.0002	138.63	4.53	138.34	1.40	99%
6	0.1512	0.0055	0.0216	0.0002	142.99	4.85	138.06	1.36	96%
7	1.3253	0.0321	0.1364	0.0011	856.83	14.01	824.07	6.41	96%
8	1.4677	0.0555	0.0941	0.0025	917.17	22.85	579.68	14.93	54%
9	0.1557	0.0058	0.0214	0.0002	146.95	5.07	136.25	1.44	92%
10	0.1614	0.0104	0.0199	0.0004	151.95	9.11	127.29	2.40	82%
11	0.1526	0.0053	0.0218	0.0002	144.22	4.68	139.20	1.38	96%
12	0.1675	0.0070	0.0217	0.0003	157.27	6.13	138.70	1.73	87%
13	0.1782	0.0094	0.0216	0.0003	166.49	8.11	137.69	2.05	81%
14	0.1444	0.0061	0.0218	0.0003	136.99	5.43	139.15	1.67	98%
15	0.1504	0.0070	0.0218	0.0003	142.25	6.20	138.86	1.64	97%
16	0.1553	0.0077	0.0218	0.0003	146.62	6.77	138.75	1.78	94%
17	0.1413	0.0059	0.0216	0.0003	134.20	5.26	137.53	1.58	97%
18	0.1605	0.0065	0.0219	0.0003	151.10	5.68	139.58	1.66	92%
19	0.1436	0.0052	0.0217	0.0003	136.22	4.64	138.66	1.70	98%
20	0.1479	0.0063	0.0216	0.0003	140.02	5.55	137.54	2.03	98%
21	1.1972	0.0309	0.1280	0.0020	799.28	14.28	776.40	11.22	97%
22	0.1635	0.0087	0.0212	0.0003	153.78	7.61	135.20	2.05	87%
23	0.1387	0.0053	0.0215	0.0002	131.92	4.76	137.33	1.48	95%
24	0.1409	0.0139	0.0195	0.0005	133.88	12.39	124.33	2.85	92%
03DLS01									
1	0.2220	0.0152	0.0209	0.0005	203.54	12.60	133.20	3.27	58%
2	0.2734	0.0270	0.0187	0.0005	245.44	21.53	119.55	3.39	31%
3	0.4288	0.0415	0.0212	0.0008	362.35	29.52	134.98	5.21	8%
4	0.1945	0.0161	0.0202	0.0005	180.46	13.71	128.99	2.85	66%
5	0.3925	0.0355	0.0214	0.0007	336.19	25.92	136.49	4.23	15%
6	0.2293	0.0311	0.0188	0.0005	209.66	25.72	120.26	3.06	45%
7	0.3461	0.0209	0.0208	0.0006	301.77	15.77	132.68	3.64	22%
8	0.3005	0.0328	0.0192	0.0006	266.78	25.62	122.59	3.83	25%
9	0.2566	0.0243	0.0193	0.0005	231.95	19.68	123.30	2.96	38%
10	0.1871	0.0145	0.0209	0.0005	174.15	12.41	133.60	2.99	73%
11	0.1524	0.0115	0.0199	0.0005	144.06	10.12	126.86	2.90	87%
12	0.2527	0.0220	0.0192	0.0007	228.76	17.81	122.32	4.38	39%

13	0.3425	0.0287	0.0213	0.0007	299.08	21.70	135.88	4.13	24%
14	0.3925	0.0449	0.0188	0.0008	336.18	32.78	120.37	5.27	5%
15	0.1691	0.0160	0.0195	0.0006	158.64	13.88	124.41	3.61	75%
16	0.2346	0.0252	0.0195	0.0006	213.97	20.70	124.22	3.88	46%
17	0.4621	0.0424	0.0204	0.0006	385.72	29.45	130.00	4.08	0%
18	0.1577	0.0118	0.0190	0.0004	148.69	10.38	121.24	2.49	79%
19	0.2355	0.0181	0.0193	0.0006	214.74	14.86	123.31	3.76	45%
20	0.2302	0.0234	0.0193	0.0005	210.39	19.31	123.31	3.08	47%
21	0.3021	0.0368	0.0193	0.0007	268.07	28.72	123.08	4.52	25%
22	0.3682	0.0278	0.0201	0.0006	318.33	20.61	128.04	3.81	14%
23	0.3678	0.0288	0.0207	0.0006	318.00	21.40	132.36	3.67	17%
24	0.2152	0.0188	0.0202	0.0006	197.90	15.68	129.04	3.48	57%
25	0.1458	0.0112	0.0196	0.0005	138.24	9.91	125.06	3.20	89%
26	0.1468	0.0128	0.0203	0.0005	139.05	11.32	129.55	3.00	92%
27	0.4098	0.0328	0.0200	0.0009	348.75	23.66	127.42	5.37	7%
28	0.9841	0.1093	0.0278	0.0013	695.70	56.00	176.89	8.10	19%
29	0.1854	0.0140	0.0203	0.0005	172.70	12.02	129.56	2.86	71%
30	0.2312	0.0210	0.0188	0.0006	211.15	17.33	120.37	4.07	45%
03DLS03									
1	0.2383	0.0589	0.0203	0.0009	217.05	48.29	129.73	5.99	49%
2	0.4065	0.0340	0.0212	0.0004	346.34	24.58	135.07	2.43	12%
3	0.2045	0.0389	0.0195	0.0007	188.96	32.76	124.19	4.29	58%
4	1.2228	0.0844	0.1349	0.0028	811.08	38.57	815.52	15.68	99%
5	0.2101	0.0347	0.0190	0.0006	193.66	29.14	121.34	3.68	54%
6	0.3051	0.0311	0.0231	0.0005	270.41	24.21	146.97	3.37	40%
7	0.1319	0.0282	0.0199	0.0005	125.85	25.30	126.93	3.05	99%
8	0.3703	0.0363	0.0218	0.0005	319.87	26.89	139.05	3.42	21%
9	1.2345	0.1053	0.0261	0.0011	816.39	47.89	166.12	7.04	33%
10	0.1403	0.0211	0.0203	0.0005	133.28	18.75	129.75	3.14	97%
11	0.1230	0.0373	0.0192	0.0007	117.83	33.74	122.48	4.18	96%
12	0.1343	0.0280	0.0200	0.0007	127.92	25.10	127.67	4.16	99%
13	0.2378	0.0598	0.0194	0.0008	216.63	49.09	123.76	5.14	45%
14	0.1398	0.0250	0.0205	0.0005	132.91	22.25	130.79	3.36	98%
15	0.0372	0.0338	0.0212	0.0009	37.13	33.14	135.04	5.65	14%
16	0.2103	0.0396	0.0209	0.0009	193.84	33.20	133.60	5.68	63%
17	0.1917	0.0206	0.0205	0.0005	178.04	17.52	130.72	3.05	69%
18	0.1344	0.0280	0.0197	0.0008	128.02	25.11	125.81	5.02	98%
19	0.1952	0.0290	0.0198	0.0007	181.03	24.61	126.14	4.29	64%
20	0.1541	0.0416	0.0174	0.0008	145.53	36.63	111.39	5.19	73%
21	0.1356	0.0266	0.0203	0.0007	129.15	23.79	129.54	4.44	99%
22	0.5836	0.0646	0.0225	0.0009	466.76	41.47	143.37	5.71	7%
23	0.1925	0.0368	0.0190	0.0006	178.72	31.35	121.28	3.86	61%
24	0.1877	0.0227	0.0191	0.0005	174.65	19.42	121.69	3.15	64%
25	0.2069	0.0374	0.0190	0.0007	190.97	31.45	121.02	4.73	55%
26	0.1674	0.0310	0.0197	0.0007	157.15	26.94	125.54	4.11	77%
27	0.1366	0.0198	0.0190	0.0005	129.97	17.73	121.28	3.14	93%
28	0.0331	0.0416	0.0184	0.0007	33.11	40.91	117.66	4.60	13%
29	0.1363	0.0236	0.0202	0.0005	129.70	21.08	128.96	3.09	99%
30	0.1609	0.0175	0.0190	0.0005	151.47	15.29	121.40	3.35	77%

Table S3. Trace element compositions of zircons (ppm) from granitoids in the Anqing orefield.

Sample/ Spot	Ti	Y	Nb	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	Pb	Th	U	Th/U	T (°C) ^a
03YS-16																								
1	3.4	380	1.2	0.0	25	0.0	0.6	1.1	0.5	5.8	2.1	24	11	58	14	168	44	12830	0.4	14.7	361	508	0.7	655
2	1.1	435	1.2	0.0	26	0.0	0.6	1.2	0.4	7.1	2.3	29	12	67	16	188	48	12231	0.4	13.0	348	515	0.7	577
3	0.1	431	1.2	0.0	28	0.0	0.7	1.2	0.6	6.8	2.4	31	12	65	16	175	44	11719	0.5	11.3	305	433	0.7	441
4	2.2	609	1.8	0.0	28	0.0	0.6	1.7	0.6	8.1	2.8	38	17	92	23	266	68	11452	0.5	10.0	230	393	0.6	622
5	11.4	598	1.4	0.2	29	0.1	1.6	2.4	0.8	12.5	4.2	50	19	91	20	197	43	11178	0.7	2.7	93	96	1.0	753
6	8.3	386	1.4	0.1	24	0.0	0.4	1.1	0.5	6.5	2.2	26	12	58	14	156	39	12419	0.6	15.2	260	375	0.7	724
7	2.7	488	1.6	0.2	32	0.1	1.4	1.4	0.8	6.1	2.3	30	14	73	19	221	57	11826	0.5	15.2	304	431	0.7	636
8	3.4	515	1.7	0.1	33	0.1	0.8	1.4	0.8	8.0	2.9	36	15	78	19	210	53	11886	0.5	17.5	553	642	0.9	655
9	3.6	1285	5.2	0.4	76	0.2	1.2	2.4	1.4	18.1	6.2	82	37	193	49	541	137	12091	1.1	26.3	756	906	0.8	658
10	2.8	527	1.7	0.0	35	0.0	1.0	1.5	0.8	8.6	3.0	36	15	81	20	218	54	11825	0.5	16.4	525	628	0.8	641
11	8.9	1106	1.4	1.2	39	0.5	4.9	6.3	1.8	27.8	8.6	97	36	164	35	337	71	10595	0.7	4.8	191	153	1.3	730
12	11.8	876	4.1	0.6	31	0.2	2.1	2.5	0.3	14.6	5.6	68	28	136	31	305	68	12227	1.3	26.7	248	312	0.8	755
13	3.6	544	2.0	0.0	36	0.1	0.7	1.2	0.6	8.4	2.8	37	16	82	21	221	56	11803	0.6	17.5	435	551	0.8	658
14	3.3	858	1.8	0.1	39	0.2	2.5	4.2	1.8	20.3	6.1	68	26	125	29	303	71	11351	0.7	11.4	345	388	0.9	651
15	4.6	652	2.1	0.2	34	0.1	0.8	1.5	0.8	9.2	3.2	42	19	99	25	279	71	11553	0.6	20.4	349	515	0.7	677
16	8.0	544	1.8	0.0	38	0.1	0.9	1.6	0.8	9.4	3.1	38	16	82	20	220	56	12328	0.5	15.9	518	609	0.9	722
17	1.1	546	1.3	0.0	24	0.0	0.4	1.1	0.6	7.1	2.7	34	15	84	22	258	68	11896	0.3	11.6	283	443	0.6	576
18	2.1	460	1.3	0.2	29	0.1	0.8	0.9	0.9	7.1	2.2	29	13	69	18	203	53	12155	0.4	10.5	322	379	0.9	620
19	3.3	558	2.2	0.5	46	0.2	1.7	2.2	1.0	11.5	3.6	44	17	83	20	216	52	12297	0.8	18.6	594	679	0.9	653
20	84.3	610	2.6	3.9	51	1.6	9.3	3.5	2.7	10.8	3.4	42	18	92	23	261	68	12321	0.8	23.3	395	556	0.7	971
21	2.4	1031	1.3	0.2	35	0.2	3.1	4.9	2.5	24.2	6.8	81	32	151	35	378	92	12039	0.4	15.5	507	587	0.9	629
22	1.7	455	1.1	0.1	21	0.0	1.0	1.3	0.6	6.7	2.3	30	13	69	18	210	54	11960	0.4	9.2	168	304	0.6	608
23	2.7	626	2.3	0.0	38	0.1	0.9	2.1	0.8	10.1	3.3	44	18	95	23	258	64	11932	0.6	17.8	509	618	0.8	639
24	0.8	704	2.4	0.2	38	0.1	0.8	1.8	0.9	11.7	3.7	49	21	108	27	291	73	11593	0.7	15.3	441	564	0.8	560
25	5.8	921	2.0	0.1	49	0.4	6.5	9.6	4.3	32.2	8.2	80	29	134	30	312	72	10901	0.5	16.8	338	348	1.0	695
26	4.1	934	3.4	0.0	50	0.1	1.1	2.4	1.1	14.0	4.8	66	28	144	35	369	91	11400	0.8	15.6	443	575	0.8	669
27	1.4	692	1.2	0.1	27	0.1	1.7	2.5	1.2	13.5	4.1	51	20	104	26	285	71	12140	0.5	11.4	312	422	0.7	593
28	3.6	684	1.4	0.4	35	0.2	2.7	3.1	1.7	14.2	4.4	50	21	103	24	269	65	11952	0.4	11.5	304	359	0.8	659
29	1.4	643	2.2	0.1	36	0.1	0.6	1.4	0.7	9.8	3.1	40	18	96	25	287	75	12061	0.6	14.1	417	537	0.8	595
30	3.1	863	2.6	0.3	56	0.1	1.5	2.7	1.5	16.3	5.2	64	26	130	31	335	81	11202	0.6	13.9	545	452	1.2	649
03ZPS02																								
1	2.2	582	2.2	0.2	13	0.1	1.3	1.8	1.0	9.3	3.2	41	17	91	22	243	57	11740	0.4	10.8	113	484	0.2	623
2	7.6	854	2.9	0.0	18	0.0	1.0	2.2	1.8	14.6	5.0	60	25	129	31	335	80	10775	0.5	12.6	175	553	0.3	718
3	6.4	690	1.9	0.1	14	0.1	0.9	2.5	1.4	11.4	3.7	47	20	103	25	276	69	9563	0.3	7.5	81	323	0.3	704
4	4.7	719	1.8	0.1	12	0.0	0.8	1.6	1.3	10.6	3.8	49	21	111	27	307	74	11044	0.3	8.4	86	375	0.2	679

5	6.3	711	2.5	0.1	16	0.1	0.5	1.5	1.3	11.8	4.2	51	21	107	26	279	68	10803	0.5	13.2	163	543	0.3	703
6	7.9	673	2.1	0.0	13	0.1	0.9	1.8	1.2	9.5	3.5	45	20	102	26	284	70	10578	0.3	8.8	87	386	0.2	721
7	7.2	1091	3.9	0.7	24	0.5	3.7	3.2	2.1	17.0	5.9	76	32	164	40	426	100	11467	0.6	12.9	162	586	0.3	712
8	5.5	610	1.2	0.4	7	0.2	1.1	1.1	1.0	8.7	2.9	38	17	94	23	268	68	10668	0.1	6.1	47	276	0.2	691
9	6.7	575	2.3	0.2	10	0.1	0.8	1.5	1.0	8.7	3.1	39	16	84	21	224	54	10968	0.3	11.4	113	508	0.2	707
10	6.9	824	3.3	0.0	21	0.0	0.9	2.9	1.7	14.7	4.7	59	24	121	29	310	73	10369	0.4	15.2	243	649	0.4	709
11	4.7	746	2.5	0.0	18	0.0	0.6	2.2	1.5	12.9	4.5	54	23	109	26	276	64	10392	0.4	11.2	165	493	0.3	679
12	5.4	698	3.3	0.2	20	0.1	0.9	2.5	1.5	13.3	4.2	49	21	102	25	260	61	10793	0.4	16.2	246	682	0.4	690
13	6.3	824	2.6	0.0	17	0.1	0.7	1.9	1.3	13.3	4.7	58	25	127	31	339	79	10972	0.4	12.2	147	544	0.3	702
14	1241.3	885	3.1	0.0	17	0.1	1.4	2.8	0.9	16.1	5.5	68	28	138	32	342	79	10687	0.6	25.4	129	150	0.9	1469
15	5.5	731	2.3	0.0	15	0.0	1.2	2.0	1.5	13.5	4.1	52	22	109	26	284	68	9891	0.3	12.3	162	536	0.3	691
16	5.4	690	3.5	0.0	18	0.1	1.2	1.9	1.4	11.2	3.9	48	20	102	25	276	62	11546	0.5	17.6	201	749	0.3	690
17	8.8	708	2.2	0.8	16	0.3	2.7	2.4	1.5	11.8	3.9	48	20	106	27	290	71	10920	0.3	9.8	133	432	0.3	730
18	6.9	630	2.5	0.0	16	0.0	0.9	1.6	1.3	9.8	3.5	45	19	95	23	245	58	10743	0.4	13.6	172	579	0.3	710
19	4.1	885	2.6	0.1	14	0.0	1.0	2.0	1.5	11.8	4.6	59	26	133	32	355	84	10269	0.4	9.4	89	422	0.2	669
20	3.3	603	1.0	0.0	8	0.0	0.0	1.0	1.0	7.6	3.0	37	17	91	23	267	66	9797	0.1	5.4	44	242	0.2	652
21	8.2	1158	4.9	0.0	21	0.1	1.3	3.6	2.7	22.8	7.4	87	35	162	38	391	87	10647	0.6	21.4	307	962	0.3	723
22	6.6	492	1.8	0.0	14	0.1	0.4	1.5	1.1	8.6	2.8	35	15	73	18	202	48	10839	0.4	10.2	128	437	0.3	706
23	5.2	696	1.4	0.0	12	0.0	0.6	1.7	1.3	10.2	3.4	46	20	107	26	298	73	10402	0.2	8.3	98	364	0.3	686
24	7.0	555	1.7	0.0	14	0.0	0.6	1.4	1.2	10.0	3.1	38	16	83	20	221	53	10342	0.3	10.7	123	456	0.3	711
25	7.3	752	2.3	0.2	15	0.1	1.2	1.9	1.4	12.4	4.2	53	22	116	28	303	73	10640	0.3	7.8	90	344	0.3	714
26	3.2	624	1.0	0.0	8	0.1	0.4	1.6	1.0	8.8	3.1	41	18	98	25	287	72	10307	0.1	6.1	57	267	0.2	650
27	4.5	566	2.9	0.1	21	0.1	1.3	2.2	1.5	12.6	3.7	43	17	84	19	206	48	11128	0.5	16.8	322	740	0.4	675
28	7.3	718	3.0	0.0	20	0.1	1.3	2.1	1.7	13.6	4.2	52	21	105	25	269	64	10740	0.4	15.9	281	681	0.4	714
29	3.8	690	1.5	0.1	16	0.1	0.7	1.6	0.5	10.3	3.9	51	21	110	26	275	64	11091	0.5	24.3	115	146	0.8	663
30	7.9	804	2.1	0.0	15	0.0	1.0	2.4	1.5	12.7	4.2	55	23	119	29	313	77	9962	0.3	10.0	120	444	0.3	720
14ZP01																								
1	14.0	5278	13.4	2.4	42	1.4	12.8	19.7	6.0	121.3	44.2	518	194	812	159	1412	267	26057	4.6	25.3	355	463	0.8	772
2	30.1	1332	7.0	0.3	82	0.3	3.1	5.8	1.8	25.5	8.7	105	41	202	47	451	95	36059	3.0	66.9	537	865	0.6	848
3	18.6	1688	6.4	0.8	40	0.4	3.1	5.5	3.6	27.1	9.6	119	49	248	61	664	163	30112	1.1	4.4	326	1092	0.3	799
4	15.9	2577	12.5	0.1	89	0.2	3.3	9.2	5.7	49.0	16.3	194	78	378	90	929	210	31091	2.6	9.5	761	1768	0.4	783
5	20.9	1619	6.4	0.8	64	0.3	3.2	6.8	3.3	30.4	9.6	121	48	243	57	620	144	31336	1.3	7.8	516	1035	0.5	810
6	16.5	2061	8.9	2.1	98	0.5	4.8	8.7	4.1	43.5	13.9	166	63	304	71	745	167	30497	2.2	8.3	575	1059	0.5	787
7	16.3	2704	11.7	0.5	103	0.3	4.1	9.2	5.0	51.8	17.1	215	84	401	94	963	213	28341	2.5	7.6	453	1026	0.4	786
8	30.0	2107	9.5	1.2	70	0.4	3.6	6.8	3.9	37.7	12.9	159	64	314	74	776	175	28436	2.0	6.7	391	1192	0.3	848
9	10.1	1868	4.9	0.2	45	0.2	3.5	6.6	3.9	29.2	10.0	124	53	268	68	757	184	28929	0.9	5.1	365	1025	0.4	742
10	9.9	2023	5.8	0.0	46	0.1	2.0	4.9	1.8	30.7	11.2	151	65	318	76	802	180	32436	2.2	20.4	276	400	0.7	740
03DLS01																								
1	6.7	2151	14.0	0.0	138	0.2	3.9	7.6	1.1	45.1	16.2	187	72	312	64	577	110	8394	3.7	11.1	542	341	1.6	707
2	7.4	1151	5.3	0.0	64	0.1	1.6	4.8	0.7	23.0	7.8	97	37	176	38	356	72	9157	2.1	4.2	180	154	1.2	715

3	21.5	966	2.6	0.0	44	0.1	2.0	4.6	1.2	22.1	7.2	84	33	148	32	285	59	7890	1.1	2.6	121	89	1.3	813
4	9.1	2233	14.1	0.0	91	0.1	3.7	6.6	0.8	39.8	15.2	185	72	334	71	642	124	9468	4.3	10.4	427	372	1.2	733
5	12.4	1097	7.8	0.0	50	0.0	1.1	3.0	0.5	18.2	6.7	88	36	169	36	359	71	9820	2.6	5.1	135	149	0.9	760
6	7.8	2091	7.1	0.1	69	0.1	2.4	5.6	0.6	32.9	12.2	163	65	309	69	651	132	10556	2.2	9.1	387	318	1.2	720
7	6.8	1249	10.5	22.3	101	4.5	18.7	5.8	0.5	20.0	7.4	93	39	189	43	412	86	10806	3.2	10.2	289	305	0.9	708
8	9.0	833	6.1		50	0.0	0.6	2.3	0.3	13.9	5.0	66	27	124	28	270	56	10388	2.0	4.2	137	161	0.9	732
9	7.7	1250	9.9	0.0	62	0.1	1.8	3.4	0.6	20.3	7.7	101	41	191	42	378	74	10166	3.4	6.1	218	232	0.9	718
10	4.3	915	7.2	0.0	53	0.0	0.6	2.1	0.3	13.5	5.2	67	28	142	35	352	84	12407	2.3	12.6	319	489	0.7	672
11	8.3	2070	13.9	8.4	120	2.8	14.6	8.6	1.0	38.6	13.4	172	66	294	63	565	109	9422	4.1	10.6	468	373	1.3	725
12	10.9	1245	5.9	0.0	65	0.1	2.0	4.9	0.8	23.8	8.4	104	40	184	40	372	73	9209	2.3	5.7	258	191	1.3	749
13	11.7	1188	3.4	0.0	41	0.2	2.3	5.3	1.2	24.6	8.9	101	39	173	37	350	70	8491	1.4	3.1	97	101	1.0	755
14	13.9	806	2.3	0.0	51	0.1	2.5	3.6	0.8	18.4	5.7	71	27	117	25	235	48	8139	1.0	1.9	76	68	1.1	771
15	6.1	1147	6.8	0.0	61	0.1	1.7	3.6	0.5	20.4	7.6	93	36	170	38	359	73	9893	2.5	5.5	200	207	1.0	699
16	6.4	838	7.7	0.0	52	0.1	0.6	1.8	0.2	10.3	4.4	57	25	125	31	311	65	10199	2.4	5.0	172	193	0.9	704
17	10.7	1091	8.2	0.1	54	0.1	1.2	2.3	0.4	15.7	6.3	81	34	167	39	390	76	10811	2.5	8.5	209	225	0.9	747
18	15.9	2956	11.6	0.0	169	0.5	6.2	14.5	2.6	76.1	24.8	283	100	420	82	710	132	7564	3.2	12.1	789	359	2.2	784
19	6.4	1189	9.0	0.0	61	0.0	1.2	3.3	0.4	20.6	7.5	96	39	184	41	381	74	10452	3.2	6.2	222	235	0.9	703
20	5.1	1155	8.6	1.9	65	0.7	4.7	3.7	0.5	20.5	7.3	93	38	177	38	373	74	10415	3.0	6.3	236	235	1.0	685
21	16.3	1495	6.0	0.0	82	0.2	2.7	6.1	1.4	30.0	10.7	121	50	230	50	459	92	7560	1.8	3.6	153	133	1.2	786
22	8.3	910	6.0	0.1	49	0.1	0.9	2.5	0.5	16.7	5.8	74	30	141	31	305	59	10320	2.3	4.6	134	151	0.9	725
23	10.2	1236	6.2	0.1	70	0.1	2.4	4.7	0.9	25.8	9.1	106	41	186	41	386	73	9383	2.0	6.4	204	189	1.1	743
24	7.7	1243	7.5	0.0	69	0.1	2.1	3.8	0.5	23.5	8.5	104	41	188	41	385	76	9954	2.5	6.0	232	207	1.1	718
25	7.5	1246	12.4	0.0	73	0.1	1.3	2.5	0.3	17.2	6.6	88	37	195	45	455	95	10762	3.4	8.7	341	322	1.1	717
26	7.3	1553	13.6		82	0.1	1.7	3.6	0.5	21.6	8.8	113	47	235	53	508	103	10497	3.9	9.2	357	339	1.1	714
27	15.0	976	1.9	2.0	40	0.6	4.9	5.0	1.2	24.4	7.8	89	33	150	32	294	58	8138	0.9	1.8	88	62	1.4	778
28	11.1	1274	6.4		59	0.1	2.7	5.2	0.8	23.1	8.8	108	43	202	44	418	84	9008	2.3	7.3	174	157	1.1	750
29	6.5	1217	8.7	0.5	61	0.3	2.3	3.2	0.5	21.8	7.8	98	39	188	41	390	78	10979	3.1	6.8	237	249	1.0	705
30	15.0	1491	5.7	0.0	83	0.2	3.6	6.3	1.3	31.7	11.2	128	50	226	46	439	87	8722	2.0	4.4	215	166	1.3	778
03DLS03																								
1	18.3	665	1.3	0.1	31	0.1	1.2	2.7	0.9	15.1	5.1	60	22	101	22	206	42	7904	0.6	1.5	69	54	1.3	797
2	12714.4	708	56.1	639.5	903	67.2	215.4	29.0	3.5	33.0	6.8	65	23	106	24	241	56	12741	1.4	17.8	152	627	0.2	2393
3	15.8	962	2.6	0.6	52	0.3	2.9	4.9	1.1	23.5	7.5	86	33	148	32	291	58	8808	1.1	2.8	132	102	1.3	783
4	5.8	573	1.1	0.0	16	0.0	0.7	1.9	0.5	11.3	3.7	46	18	88	20	198	44	10555	0.5	13.5	79	77	1.0	695
5	8.0	829	5.3	0.0	51	0.1	0.8	2.5	0.4	14.9	5.4	69	28	130	29	276	55	10537	2.0	3.5	126	139	0.9	721
6	6.5	999	6.6	0.3	65	0.2	2.0	3.3	0.6	18.0	6.4	80	33	160	36	360	78	10203	2.0	8.9	219	259	0.8	705
7	21.3	771	6.2	0.5	42	0.1	1.2	1.9	0.3	12.2	4.6	58	24	123	28	271	57	9777	2.1	3.4	106	128	0.8	812
8	7.0	1636	8.7	1.6	78	0.4	3.1	5.5	1.0	32.3	11.0	134	54	248	54	510	102	8724	2.5	6.8	198	191	1.0	710
9	14.3	1242	1.8	5.0	58	1.4	8.2	7.5	1.5	32.1	10.2	117	42	187	39	359	72	8341	0.8	7.2	124	120	1.0	773
10	9.4	1006	5.0	0.0	55	0.1	1.6	3.8	0.5	19.3	7.2	87	34	159	35	327	65	9471	2.0	4.0	157	144	1.1	735
11	15.3	696	1.8	0.0	34	0.1	2.2	3.0	1.0	17.0	5.7	64	24	108	23	217	44	8132	0.8	1.7	79	67	1.2	780

12	11.2	913	3.6	3.3	58	1.0	6.0	4.2	0.6	19.6	6.6	79	31	143	31	289	58	9062	1.3	3.2	137	115	1.2	751
13	21.1	711	1.4	0.0	31	0.1	2.3	3.4	1.0	17.7	5.8	66	24	108	23	214	42	8353	0.6	1.4	65	54	1.2	811
14	9.4	850	4.4	0.3	50	0.1	1.4	3.0	0.5	15.5	5.7	74	29	135	30	275	55	9881	1.7	3.3	128	126	1.0	736
15	16.6	647	1.7	0.1	32	0.0	1.3	2.9	0.6	13.8	4.8	56	22	99	22	209	42	8305	0.7	1.5	68	58	1.2	787
16	13.8	675	2.2	0.0	40	0.1	1.1	2.7	0.7	14.5	5.0	60	23	106	22	213	43	9142	0.9	1.9	79	72	1.1	770
17	9.3	979	5.7	0.0	57	0.1	1.5	3.2	0.5	19.2	6.5	81	32	154	33	314	62	10459	2.0	5.0	172	181	1.0	734
18	13.9	1672	1.9	0.0	63	0.2	4.5	9.9	1.6	46.1	14.3	157	56	238	47	420	81	8578	0.7	2.7	141	93	1.5	771
19	7.3	976	7.6	0.0	48	0.0	1.1	2.0	0.5	13.9	5.3	72	30	157	36	360	73	10305	2.6	3.9	140	158	0.9	714
20	17.4	1051	1.6	10.9	63	3.1	16.6	8.0	1.8	28.4	8.8	95	35	151	32	291	57	8417	0.8	1.9	100	71	1.4	792
21	9.1	985	5.0	0.1	56	0.1	1.6	3.5	0.7	19.8	6.9	84	33	152	33	307	61	9702	1.8	4.0	155	149	1.0	733
22	27.0	1026	2.1	9.1	56	2.2	10.0	6.4	1.9	27.1	8.3	95	35	156	32	292	59	7959	0.9	2.6	85	64	1.3	837
23	16.2	980	3.2	10.9	76	3.2	14.9	6.3	0.8	22.7	7.3	86	33	149	32	299	59	9026	1.1	2.8	126	102	1.2	785
24	26.5	886	5.8	34.5	137	10.3	44.9	10.7	1.1	21.6	6.1	70	28	137	31	313	64	10174	1.8	4.3	154	157	1.0	835
25	15.3	857	2.5	0.3	42	0.2	1.9	3.3	0.8	18.0	6.3	74	28	131	28	267	53	8837	1.1	2.2	96	82	1.2	780
26	10.6	749	3.4	0.0	47	0.1	1.1	2.6	0.5	14.5	5.1	63	25	114	25	234	47	9861	1.3	2.4	87	91	1.0	746
27	10.8	954	5.5	0.9	59	0.4	2.3	3.1	0.6	17.8	6.5	79	32	148	32	305	60	10446	2.0	3.8	144	152	0.9	748
28	18.9	961	1.4	0.0	34	0.2	2.6	5.0	1.4	23.2	7.6	85	32	139	29	267	53	8325	0.7	1.5	77	56	1.4	800
29	7.6	1100	5.1	13.0	80	3.8	17.3	6.4	0.8	22.2	7.5	90	35	165	36	340	67	10079	2.2	3.5	128	128	1.0	718
30	8.9	1008	6.0	0.1	56	0.1	1.6	3.0	0.5	17.6	6.3	80	33	156	35	341	69	10357	2.2	4.3	160	156	1.0	731

^a T was calculated by using Ti-in-zircon thermometer of Watson et al. [60].

Table S4. Lu-Hf isotope analysis results of zircons from granitoids in the Anqing orefield.

Sample/Spot	Age (Ma)	$^{176}\text{Hf}/^{177}\text{Hf}$	2σ	$^{176}\text{Yb}/^{177}\text{Hf}$	2σ	$^{176}\text{Lu}/^{177}\text{Hf}$	2σ	$\varepsilon_{\text{Hf}}(\text{t})$	2σ	$T_{\text{DM1}} (\text{Ma})$	$T_{\text{DM2}} (\text{Ma})$
03YS16											
1	141	0.281968	0.000008	0.015771	0.000129	0.000771	0.000006	−25.4	0.29	1797	2804
2	133	0.282008	0.000007	0.015805	0.000097	0.000800	0.000005	−24.2	0.26	1742	2719
3	135	0.282079	0.000007	0.021207	0.000151	0.001034	0.000007	−21.6	0.24	1654	2561
4	138	0.282065	0.000006	0.016208	0.000100	0.000810	0.000005	−22.1	0.21	1664	2590
5	136	0.282049	0.000008	0.019526	0.000069	0.000799	0.000003	−22.7	0.28	1686	2626
6	157	0.281935	0.000008	0.013159	0.000065	0.000652	0.000004	−26.2	0.27	1836	2865
7	146	0.281632	0.000009	0.007869	0.000042	0.000343	0.000003	−37.2	0.33	2233	3540
8	135	0.282066	0.000008	0.018579	0.000045	0.000898	0.000002	−22.1	0.28	1667	2590
9	138	0.281985	0.000008	0.021190	0.000303	0.001000	0.000011	−24.9	0.29	1783	2767
10	136	0.282089	0.000007	0.018742	0.000053	0.000911	0.000002	−21.3	0.25	1635	2538
11	139	0.282048	0.000008	0.017510	0.000116	0.000743	0.000005	−22.6	0.29	1684	2626
12	359	0.282084	0.000008	0.022386	0.000076	0.000865	0.000003	−16.6	0.30	1640	2413
13	137	0.282018	0.000008	0.019598	0.000118	0.000975	0.000006	−23.8	0.29	1737	2696
14	133	0.282033	0.000008	0.019984	0.000134	0.000936	0.000004	−23.3	0.27	1714	2665
15	143	0.282096	0.000007	0.019361	0.000045	0.000954	0.000002	−20.9	0.25	1627	2518
16	139	0.281993	0.000010	0.018411	0.000093	0.000901	0.000004	−24.6	0.34	1768	2749
17	133	0.282056	0.000009	0.016784	0.000153	0.000845	0.000007	−22.5	0.32	1679	2614
18	135	0.281995	0.000007	0.015508	0.000172	0.000756	0.000009	−24.6	0.24	1758	2746
19	136	0.282058	0.000006	0.021396	0.000105	0.001012	0.000005	−22.4	0.23	1683	2609
20	151	0.282007	0.000006	0.020413	0.000085	0.000983	0.000003	−23.9	0.20	1752	2712
21	139	0.282056	0.000008	0.018318	0.000016	0.000889	0.000001	−22.4	0.30	1680	2610
22	138	0.281985	0.000009	0.017953	0.000080	0.000882	0.000004	−24.9	0.32	1778	2767
23	139	0.282207	0.000012	0.038109	0.000536	0.001643	0.000018	−17.1	0.41	1500	2277
24	135	0.282029	0.000010	0.020690	0.000091	0.000963	0.000004	−23.4	0.34	1721	2673
26	139	0.282000	0.000008	0.023738	0.000191	0.001086	0.000006	−24.3	0.30	1766	2734
27	126	0.282074	0.000011	0.023882	0.000341	0.001089	0.000012	−22.0	0.38	1665	2579
29	137	0.281981	0.000011	0.018031	0.000083	0.000872	0.000004	−25.1	0.40	1783	2777
30	139	0.282023	0.000010	0.020139	0.000159	0.000973	0.000006	−23.5	0.34	1730	2684
03ZPS02											
1	132	0.282500	0.000008	0.013396	0.000105	0.000646	0.000004	−6.8	0.29	1054	1612
2	134	0.282518	0.000009	0.020582	0.000100	0.001027	0.000005	−6.2	0.32	1039	1574
3	137	0.282512	0.000009	0.018164	0.000060	0.000903	0.000003	−6.3	0.32	1045	1585
4	135	0.282489	0.000010	0.019804	0.000061	0.000973	0.000003	−7.1	0.36	1078	1637
5	134	0.282498	0.000008	0.019343	0.000085	0.000970	0.000004	−6.8	0.29	1066	1618
6	134	0.282876	0.000010	0.057462	0.000245	0.002372	0.000010	6.4	0.37	553	776
7	133	0.282460	0.000010	0.013681	0.000101	0.000668	0.000006	−8.2	0.35	1110	1701
8	135	0.282486	0.000011	0.020838	0.000054	0.001023	0.000003	−7.3	0.38	1084	1645
9	134	0.282588	0.000010	0.025597	0.000031	0.001203	0.000001	−3.7	0.35	944	1417
10	126	0.282569	0.000010	0.022318	0.000082	0.001069	0.000003	−4.5	0.35	969	1465
11	134	0.282569	0.000011	0.024070	0.000085	0.001161	0.000005	−4.4	0.38	971	1461
12	134	0.282511	0.000010	0.018444	0.000088	0.000911	0.000004	−6.4	0.35	1046	1589
13	134	0.282500	0.000010	0.023807	0.000110	0.001148	0.000006	−6.8	0.35	1067	1614
14	134	0.282488	0.000008	0.017054	0.000067	0.000838	0.000003	−7.2	0.30	1076	1640
15	134	0.282521	0.000010	0.020734	0.000068	0.000996	0.000003	−6.0	0.35	1033	1566
16	134	0.282515	0.000011	0.019512	0.000046	0.000967	0.000003	−6.2	0.38	1041	1579
17	134	0.282501	0.000014	0.022973	0.000114	0.001104	0.000005	−6.7	0.50	1065	1611
18	134	0.282591	0.000013	0.027144	0.000231	0.001268	0.000009	−3.6	0.45	942	1411
19	134	0.282338	0.000012	0.035736	0.000190	0.001660	0.000008	−12.5	0.44	1313	1977
20	134	0.282488	0.000013	0.017075	0.000079	0.000818	0.000004	−7.2	0.46	1075	1639
21	134	0.282502	0.000009	0.022208	0.000103	0.001115	0.000005	−6.7	0.32	1064	1609
22	134	0.282491	0.000010	0.017901	0.000047	0.000869	0.000002	−7.1	0.37	1072	1632
23	134	0.282440	0.000014	0.011924	0.000029	0.000575	0.000001	−8.8	0.48	1135	1744
24	134	0.282522	0.000010	0.023050	0.000059	0.001115	0.000003	−6.0	0.34	1035	1564
14ZP01											
1	138	0.282326	0.000046	0.292224	0.005465	0.005929	0.000140	−13.3	1.64	1504	2034
2	139	0.282327	0.000025	0.032705	0.000334	0.000914	0.000004	−12.8	0.89	1304	2006
3	136	0.282417	0.000025	0.033881	0.000270	0.000959	0.000006	−9.6	0.89	1180	1806

4	767	0.282043	0.000027	0.088237	0.001079	0.002119	0.000029	−10.0	0.94	1755	2299
5	138	0.282360	0.000026	0.028493	0.000062	0.000818	0.000002	−11.6	0.91	1254	1931
6	138	0.282391	0.000027	0.037354	0.000313	0.000991	0.000012	−10.6	0.97	1218	1864
7	824	0.282070	0.000020	0.042327	0.000320	0.001082	0.000007	−7.2	0.72	1669	2172
8	580	0.281424	0.000025	0.024629	0.000408	0.000671	0.000010	−35.2	0.89	2534	3731
9	136	0.282383	0.000024	0.031870	0.000071	0.000902	0.000002	−10.8	0.84	1225	1882
10	127	0.282364	0.000024	0.043279	0.000757	0.001215	0.000017	−11.7	0.84	1262	1930
11	139	0.282363	0.000030	0.040848	0.000051	0.001137	0.000002	−11.5	1.07	1261	1926
12	139	0.282300	0.000026	0.036831	0.000227	0.001080	0.000003	−13.7	0.92	1347	2066
13	138	0.282401	0.000026	0.040585	0.000636	0.001066	0.000013	−10.2	0.92	1206	1842
14	139	0.282379	0.000023	0.061341	0.001191	0.001630	0.000026	−11.0	0.82	1255	1892
15	139	0.282370	0.000019	0.025958	0.000191	0.000820	0.000004	−11.2	0.69	1240	1908
16	138	0.282289	0.000027	0.032353	0.000196	0.001078	0.000003	−14.2	0.96	1364	2093
17	140	0.282366	0.000023	0.031922	0.000114	0.001076	0.000005	−11.4	0.80	1255	1918
18	139	0.282339	0.000023	0.038506	0.000114	0.001278	0.000003	−12.4	0.82	1300	1981
19	138	0.282386	0.000027	0.016253	0.000104	0.000534	0.000002	−10.7	0.94	1209	1872
20	776	0.282074	0.000032	0.110632	0.001998	0.002799	0.000047	−9.0	1.15	1743	2247
21	135	0.282322	0.000025	0.031451	0.000161	0.001112	0.000003	−13.1	0.87	1319	2021
22	137	0.282318	0.000022	0.024081	0.000105	0.000855	0.000002	−13.1	0.78	1315	2027
23	124	0.282327	0.000020	0.031549	0.000353	0.001081	0.000009	−13.1	0.69	1309	2014
03DLS01											
1	133	0.282717	0.000006	0.030032	0.000283	0.001197	0.000010	0.9	0.21	761	1127
2	135	0.282690	0.000008	0.031531	0.000300	0.001193	0.000011	0.0	0.28	800	1188
3	120	0.282915	0.000008	0.062237	0.000437	0.002304	0.000016	7.5	0.30	495	696
4	129	0.282738	0.000009	0.043258	0.000226	0.001720	0.000003	1.5	0.32	742	1085
6	133	0.282689	0.000011	0.042121	0.000114	0.001663	0.000005	−0.2	0.38	812	1194
8	123	0.282741	0.000008	0.037935	0.000274	0.001455	0.000010	1.5	0.28	733	1083
9	123	0.282740	0.000007	0.043059	0.000185	0.001615	0.000006	1.4	0.26	738	1086
10	134	0.282776	0.000007	0.042071	0.000157	0.001588	0.000005	2.9	0.25	686	998
11	127	0.282746	0.000008	0.057319	0.000146	0.002111	0.000005	1.7	0.30	739	1073
12	122	0.282775	0.000007	0.042224	0.000498	0.001605	0.000019	2.7	0.26	686	1006
13	136	0.282595	0.000008	0.020641	0.000120	0.000823	0.000005	−3.3	0.30	925	1398
14	120	0.282613	0.000009	0.026495	0.000103	0.001022	0.000004	−3.1	0.31	905	1368
15	124	0.282867	0.000009	0.059219	0.000418	0.002211	0.000015	5.9	0.32	565	802
16	130	0.282943	0.000012	0.073045	0.001356	0.002570	0.000045	8.7	0.42	457	628
18	123	0.282999	0.000009	0.087655	0.000431	0.003187	0.000015	10.5	0.32	381	509
20	123	0.282754	0.000007	0.037660	0.000131	0.001457	0.000005	1.9	0.23	714	1053
21	123	0.282792	0.000009	0.037576	0.000271	0.001494	0.000010	3.3	0.31	660	966
22	132	0.282917	0.000007	0.079396	0.000518	0.003165	0.000020	7.8	0.26	503	689
24	129	0.282738	0.000008	0.041357	0.000318	0.001537	0.000011	1.5	0.28	739	1087
25	130	0.282750	0.000007	0.043105	0.000129	0.001646	0.000004	1.9	0.25	724	1059
27	127	0.282865	0.000009	0.060160	0.000398	0.002209	0.000014	5.9	0.32	567	804
28	177	0.282820	0.000009	0.054789	0.000267	0.002015	0.000009	5.3	0.30	630	878
29	130	0.282731	0.000008	0.027199	0.000187	0.001094	0.000007	1.3	0.27	740	1098
30	120	0.282708	0.000009	0.035939	0.000487	0.001389	0.000017	0.3	0.31	779	1158
03DLS03											
1	130	0.282442	0.000008	0.039198	0.000215	0.001303	0.000004	−8.9	0.28	1154	1747
2	135	0.282303	0.000010	0.045662	0.000074	0.001492	0.000004	−13.8	0.37	1358	2055
3	816	0.281768	0.000010	0.024485	0.000353	0.000857	0.000012	−18.0	0.34	2074	2825
4	124	0.282431	0.000009	0.026907	0.000064	0.000886	0.000002	−9.4	0.32	1157	1773
5	121	0.282455	0.000008	0.027791	0.000088	0.000904	0.000002	−8.6	0.28	1123	1720
6	127	0.282438	0.000008	0.035035	0.000138	0.001150	0.000004	−9.1	0.29	1155	1757
7	130	0.282409	0.000008	0.031630	0.000042	0.001104	0.000002	−10.1	0.30	1194	1819
8	123	0.282457	0.000009	0.026160	0.000025	0.000860	0.000002	−8.5	0.31	1120	1715
9	128	0.282321	0.000010	0.053059	0.000279	0.001662	0.000009	−13.3	0.37	1338	2020
10	124	0.282470	0.000010	0.033090	0.000062	0.001094	0.000002	−8.0	0.36	1108	1686
11	131	0.282409	0.000008	0.033715	0.000051	0.001067	0.000003	−10.0	0.28	1192	1817
12	134	0.282376	0.000011	0.034839	0.000168	0.001139	0.000005	−11.2	0.40	1241	1890
13	135	0.282375	0.000011	0.039300	0.000657	0.001231	0.000021	−11.2	0.39	1246	1892
14	126	0.282421	0.000013	0.038508	0.000559	0.001203	0.000018	−9.8	0.46	1181	1796
15	126	0.282429	0.000008	0.036973	0.000146	0.001204	0.000003	−9.4	0.30	1169	1776

16	130	0.282338	0.000010	0.057314	0.000285	0.001807	0.000009	−12.7	0.34	1319	1982
17	143	0.282376	0.000012	0.029934	0.000369	0.000966	0.000010	−11.0	0.41	1236	1884
18	121	0.282289	0.000010	0.068953	0.000319	0.002129	0.000014	−14.6	0.35	1400	2095
19	122	0.282409	0.000008	0.042166	0.000092	0.001392	0.000003	−10.3	0.29	1203	1824
20	121	0.282427	0.000010	0.030502	0.000103	0.000979	0.000003	−9.6	0.35	1166	1785
21	126	0.282395	0.000009	0.036642	0.000077	0.001152	0.000003	−10.7	0.32	1215	1853
22	121	0.282465	0.000008	0.038235	0.000350	0.001230	0.000010	−8.3	0.30	1119	1699
23	121	0.282449	0.000007	0.031749	0.000063	0.001089	0.000002	−8.9	0.25	1138	1736
24	127	0.282416	0.000010	0.043405	0.000099	0.001368	0.000003	−9.9	0.36	1193	1806
