

Table 2S Major elements (wt%) and trace elements (ppm) compositions of Late Carboniferous intrusive rocks from the Kalamaili suture zone

Sample No	T12716-3.1	T12716-3.2	T12716-3.3	T12716-3.5	T15709-2.1	T15709-2.2	T15709-2.3	T15709-2.4	T15709-2.5	Detection limits	STD SO-19
Pluton	Qinchengnan				Wuzunbulak						
Rock type	gabbro				diorite						
SiO ₂	42.71	43.11	43.04	44.20	57.10	58.53	57.45	54.34	56.85	0.01	60.65
Al ₂ O ₃	20.87	19.62	19.38	21.91	16.56	16.68	16.80	17.69	16.54	0.01	13.98
Fe ₂ O ₃ T	11.71	12.81	13.53	11.34	6.57	6.44	6.17	7.64	6.58	0.04	7.41
MgO	6.23	7.35	6.15	4.16	4.78	4.37	4.59	3.30	4.93	0.01	2.90
CaO	11.96	11.20	10.60	11.08	7.01	5.87	6.46	5.93	6.97	0.01	5.84
Na ₂ O	2.08	1.77	2.31	2.67	2.99	3.00	3.01	3.58	2.97	0.01	4.03
K ₂ O	0.55	0.39	0.81	0.76	1.88	1.90	1.77	2.07	1.83	0.01	1.30
TiO ₂	1.76	1.98	2.06	1.58	0.62	0.60	0.65	1.96	0.67	0.01	0.69
P ₂ O ₅	0.03	0.03	0.06	0.21	0.12	0.12	0.13	0.58	0.14	0.01	0.31
MnO	0.13	0.15	0.13	0.13	0.11	0.10	0.10	0.11	0.11	0.01	0.13
Cr ₂ O ₃	0.002	0.009	0.002	0.002	0.01	0.01	0.01	0.01	0.01	0.002	0.493
LOI	1.7	1.3	1.6	1.7	2.31	2.07	2.31	2.23	2.00	-5.1	1.9
Sum	99.71	99.70	99.69	99.74	100.11	99.73	99.48	99.46	99.66	0.01	99.79
Ba	116	103	164	156	326	318	277	367	363	1	462
Co	35.3	42.8	46.5	31.4	19.5	17.8	19.2	20.2	20.8	0.2	22.5
Cs	1.7	0.7	2.1	1.8	0.9	1.1	1.2	1.3	0.9	0.1	4.3
Ga	22.7	19.3	21.8	23.6	15.3	14.8	15.7	17.7	14.3	0.5	15.6
Hf	1.2	1.2	1.5	1.6	4.5	5.0	4.4	3.5	4.3	0.1	3.0
Nb	2.2	2.3	3.4	3.1	3.8	3.8	3.7	5.5	3.4	0.1	67.2
Rb	10.7	6.2	23.1	23.2	47.0	41.8	42.5	55.2	38.2	0.1	18.9
Sr	700.0	615.0	652.3	836.3	400.0	478.4	463.0	700.0	427.6	0.5	318.7
Ta	0.1	0.2	0.2	0.2	0.4	0.2	0.4	0.4	0.4	0.1	4.6
Th	0.4	0.5	0.7	0.5	3.6	3.0	3.2	2.7	3.6	0.2	13.5
U	0.1	0.3	0.5	0.3	<0.1	0.3	<0.1	0.6	0.2	0.1	19.0
V	452	457	553	363	68	92	56	267	105	8	163
Zr	32.9	33.3	38.1	40.1	161.7	169.4	162.6	124.1	179.3	0.1	111.1
Y	21.4	18.5	26.3	21.1	20.8	19.2	19.4	20.8	21.1	0.1	35.6
La	5.8	5.9	7.6	9.1	13.4	13.2	13.0	16.4	14.2	0.1	71.2
Ce	15.6	14.1	20.2	22.2	29.9	29.7	30.2	38.0	30.4	0.1	156.3
Pr	2.31	2.24	3.06	3.20	3.84	3.70	3.81	4.96	4.06	0.02	19.02
Nd	12.9	11.8	16.5	16.1	15.3	16.0	16.6	22.0	16.6	0.3	74.7
Sm	3.88	3.63	4.83	3.76	3.53	3.39	3.72	4.95	3.90	0.05	12.56
Eu	1.32	1.07	1.34	1.33	0.93	0.92	0.87	1.33	0.88	0.02	3.65
Gd	4.55	3.88	5.34	4.50	3.64	3.50	3.52	4.71	3.74	0.05	10.47
Tb	0.75	0.66	0.90	0.73	0.55	0.53	0.55	0.71	0.61	0.01	1.35
Dy	4.36	3.72	5.04	4.46	3.70	3.43	3.36	4.21	3.61	0.05	7.28
Ho	0.83	0.69	1.00	0.85	0.67	0.66	0.67	0.86	0.76	0.02	1.34
Er	2.44	2.14	2.85	2.19	2.33	1.99	1.97	2.16	2.11	0.03	3.83
Tm	0.29	0.27	0.41	0.31	0.30	0.29	0.31	0.28	0.31	0.01	0.53
Yb	1.72	1.48	2.19	1.82	2.05	2.03	2.11	2.02	2.09	0.05	3.48
Lu	0.25	0.23	0.35	0.27	0.29	0.29	0.28	0.27	0.32	0.01	0.49
Cu	58.7	50.2	45.7	32.4	55.6	67.1	58.9	33.4	79.4	0.1	
Pb	2.1	2.1	1.8	2.1	6.6	5.1	6.2	5.2	5.3	0.1	
Ni	6.1	15.6	5.4	4.1	46.4	49.9	45.2	8.7	50.1	0.1	
As	1.0	0.9	0.8	1.2	11.6	17.0	6.3	1.5	11.8	0.5	
Mg#	55.4	57.2	51.4	46.1	62.90	61.26	63.42	50.17	63.58		
A/CNK	0.81	0.83	0.81	0.86	0.84	0.94	0.90	0.94	0.85		
Sr/Y	32.7	33.2	24.8	39.6	19.2	24.9	23.9	33.7	20.3		
La/Yb	3.4	4.0	3.5	5.0	6.5	6.5	6.2	8.1	6.8		
Sample No	EJ16913-1.1	EJ16913-1.2	EJ16913-1.3	EJ16913-1.4	EJ16913-1.5	T12716-6.1	T12716-6.2	T12716-6.3	T12716-6.4	T12716-6.5	
Pluton	Yiwuxi				Xiaopu						
Rock type	granodiorite				porphyritic monzogranite						
SiO ₂	66.45	65.63	66.76	66.58	65.35	76.98	75.09	77.16	72.68	76.37	
Al ₂ O ₃	15.90	15.74	15.76	15.69	15.88	11.62	13.46	12.09	14.26	11.93	
Fe ₂ O ₃ T	3.70	4.34	3.72	3.79	4.28	1.62	1.12	0.97	1.82	2.10	
MgO	1.75	2.10	1.76	1.71	2.01	0.06	0.01	0.07	0.19	0.03	
CaO	3.55	3.62	3.45	3.39	3.65	0.66	0.75	0.71	0.61	0.57	
Na ₂ O	3.71	3.60	3.71	3.65	3.67	2.79	3.45	2.97	4.19	2.94	
K ₂ O	3.38	3.36	3.29	3.51	3.34	5.15	5.34	5.07	5.01	5.02	
TiO ₂	0.56	0.65	0.56	0.58	0.65	0.09	0.02	0.05	0.14	0.08	
P ₂ O ₅	0.15	0.17	0.15	0.15	0.17	0.01	0.01	0.01	0.03	0.01	
MnO	0.06	0.07	0.06	0.06	0.07	0.06	0.05	0.04	0.06	0.05	
Cr ₂ O ₃	0.004	0.005	0.005	0.005	0.006	<0.002	<0.002	<0.002	<0.002	<0.002	
LOI	0.6	0.5	0.6	0.7	0.7	0.9	0.6	0.8	0.9	0.8	
Sum	99.85	99.85	99.86	99.87	99.85	99.92	99.87	99.91	99.84	99.88	
Ba	481	494	431	470	457	532	925	681	1028	880	
Co	9.1	11.2	9.6	8.5	10.4	0.8	0.7	1.0	1.5	0.7	
Cs	5.3	6.1	5.1	4.8	5.9	1.1	0.8	1.4	0.9	1.1	
Ga	17.1	16.5	16.3	16.1	16.2	10.2	12.1	10.8	13.1	11.0	
Hf	8.0	8.6	8.1	6.8	9.1	3.8	5.6	2.7	3.8	3.7	
Nb	8.3	8.9	8.1	7.6	8.3	0.9	0.5	1.1	3.4	0.4	
Rb	103.9	102.3	101.0	102.4	100.6	94.5	84.0	75.0	85.8	78.9	
Sr	265.0	248.5	248.9	252.7	251.5	89.9	122.2	71.4	122.2	100.9	
Ta	0.7	0.8	0.7	0.7	0.7	0.1	0.1	0.1	0.1	0.7	
Th	12.5	12.6	11.7	12.6	11.5	2.0	1.2	3.6	4.9	5.1	
U	2.0	1.7	1.5	1.9	1.7	0.6	0.5	0.3	0.3	0.4	
V	65	73	63	63	72	<8	<8	<8	9	8	
Zr	330.9	353.2	312.2	272.8	361.1	113.3	185.4	84.4	146.9	134.5	
Y	25.3	28.7	26.1	24.3	26.5	2.4	4.8	3.6	11.4	2.9	
La	27.5	28.1	25.3	25.8	27.4	14.9	7.7	21.8	29.4	23.2	
Ce	56.3	56.1	51.6	53.5	55.9	29.2	14.4	47.3	62.2	41.8	
Pr	6.31	6.48	5.98	5.89	6.19	2.77	1.37	4.42	6.31	4.28	

Nd	22.8	24.3	23.1	21.4	23.7	9.5	4.9	15.0	23.0	15.4
Sm	4.75	5.05	4.47	4.42	4.46	1.41	0.70	2.13	3.98	2.19
Eu	1.03	1.01	0.97	0.94	0.93	0.60	0.75	0.65	0.89	0.76
Gd	4.50	4.92	4.40	4.18	4.36	0.88	0.61	1.28	3.42	1.54
Tb	0.71	0.76	0.66	0.64	0.70	0.11	0.10	0.16	0.52	0.16
Dy	4.22	4.54	4.07	3.79	4.16	0.59	0.68	0.78	2.82	0.63
Ho	0.86	0.94	0.80	0.79	0.89	0.09	0.18	0.12	0.52	0.11
Er	2.46	2.81	2.55	2.33	2.47	0.29	0.55	0.34	1.30	0.30
Tm	0.37	0.38	0.37	0.35	0.39	0.05	0.10	0.06	0.18	0.05
Yb	2.48	2.59	2.56	2.32	2.58	0.31	0.79	0.39	0.99	0.31
Lu	0.38	0.41	0.39	0.34	0.40	0.08	0.17	0.07	0.17	0.06
Cu	17.1	19.3	18.4	18.5	16.0	1.6	1.6	1.5	2.2	1.7
Pb	2.5	2.7	2.7	3.0	3.0	3.4	6.4	4.5	5.2	5.3
Ni	17.0	20.0	17.6	18.3	20.1	0.9	0.9	0.8	1.1	0.9
As	2.7	2.3	1.1	13.4	3.6	4.2	1.5	1.6	1.8	3.3
Mg#	52.43	53.00	52.44	51.25	52.26	7.95	2.04	14.4	19.6	3.22
A/CNK	0.98	0.98	0.99	0.98	0.97	1.02	1.05	1.04	1.06	1.06
Sr/Y	10.5	8.66	9.54	10.4	9.49	37.5	25.5	19.8	10.7	34.8
La/Yb	11.1	10.8	9.9	11.1	10.6	48.1	9.7	55.9	29.7	74.8