

Table S2 Whole-rock geochemical compositions of investigated samples from the Hengdan Group

Sample	19BK-36	19BK-37	19BK-38	19BK-39	19BK-41	19BK-42
Major element (wt.%)						
SiO ₂	68.01	67.97	66.80	73.19	69.28	67.57
TiO ₂	0.60	0.67	0.65	0.45	0.47	0.62
Al ₂ O ₃	15.45	14.15	15.01	13.32	11.46	14.44
FeO _{Total}	4.18	4.45	5.02	3.75	5.86	4.75
MnO	0.08	0.09	0.13	0.07	0.15	0.08
MgO	1.55	1.90	1.91	1.31	1.85	1.65
CaO	1.17	2.29	2.46	0.75	2.82	2.24
Na ₂ O	3.03	4.28	2.12	3.16	2.45	3.83
K ₂ O	3.17	2.24	3.12	2.16	1.19	1.61
P ₂ O ₅	0.09	0.10	0.12	0.07	0.06	0.09
LOI	1.96	1.36	2.11	1.74	3.87	2.36
Total	99.30	99.49	99.45	99.96	99.46	99.22
Trace element (ppm)						
Be	1.78	1.41	1.78	1.49	0.805	1.05
Sc	12.3	12.5	12.7	8.14	8.13	11.1
V	69.0	83.3	72.7	45.8	48.2	69.8
Cr	26.2	31.0	36.6	24.2	24.9	45.7
Co	7.31	11.2	10.8	5.72	11.3	12.2
Ni	14.5	17.0	23.0	13.8	20.8	25.8
Cu	12.1	13.7	19.9	9.44	10.8	13.1
Zn	67.0	61.8	69.1	45.0	81.2	63.6
Ga	18.4	17.0	19.2	15.5	12.6	17.3
Rb	88.3	57.2	90.7	67.9	39.1	42.1
Sr	147	237	462	149	227	218
Y	27.5	25.4	29.6	19.7	18.9	22.0
Zr	217	213	227	169	213	183
Nb	9.67	7.81	10.7	7.89	7.46	6.69
Cs	2.96	1.22	3.69	2.49	1.45	1.62
Ba	692	593	596	470	251	332
La	26.8	24.6	31.5	20.5	20.5	21.3
Ce	56.6	50.0	63.3	42.7	43.1	44.8
Pr	6.72	6.32	7.18	5.12	4.95	5.38
Nd	25.2	24.5	27.4	18.9	18.8	21.1
Sm	5.12	4.84	5.55	3.87	3.76	4.39
Eu	1.21	1.18	1.31	0.877	0.863	1.20
Gd	5.02	4.14	4.82	3.19	3.48	3.63
Tb	0.785	0.687	0.757	0.545	0.568	0.642
Dy	4.81	4.09	4.95	3.56	3.37	3.89
Ho	0.953	0.820	1.05	0.677	0.629	0.744
Er	2.80	2.43	3.01	2.06	1.91	2.26
Tm	0.453	0.396	0.464	0.330	0.304	0.364
Yb	2.87	2.55	2.95	2.14	2.05	2.24
Lu	0.456	0.380	0.448	0.332	0.330	0.357
Hf	5.67	5.64	5.99	4.44	5.43	4.60
Ta	0.674	0.526	0.772	0.528	0.541	0.426
Pb	8.33	11.4	12.8	9.38	5.56	13.5
Th	7.33	7.34	8.49	5.98	6.02	4.65
U	1.54	1.57	1.57	1.18	1.19	1.07