

附表 1 金河桥榴辉岩石榴石代表性微量元素组成(10^{-6})Appendix table 1 Representative garnet trace element compositions for Jinheqiao eclogite(10^{-6})

Sample	Spot	Li	Na	P	Sc	V	Sr	Y	Zr	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ti
16DB20-1	Grt6	0.611	172	208	66.3	84.8	0.113	37.3	0.931	0.008	0.026	0.004	0.031	0.470	0.493	2.28	0.632	5.63	1.10	3.53	0.448	3.12	0.366	0.020	360
	Grt10	n.d	210	202	68.8	71.8	0.172	39.5	1.09	0.000	0.009	0.012	0.187	0.368	0.322	1.97	0.675	5.91	1.21	3.58	0.504	4.04	0.469	0.013	420
	Grt15	1.23	232	239	72.4	62.4	0.065	40.3	1.44	n.d	0.009	0.004	0.010	0.365	0.195	1.59	0.630	5.29	1.25	3.84	0.505	3.35	0.468	n.d	300
	Grt17	0.133	258	294	68.7	61.6	0.067	40.1	1.53	n.d	n.d	n.d	0.095	0.146	0.149	1.41	0.547	5.88	1.29	4.22	0.528	3.72	0.570	n.d	290
	Grt24	0.739	120	62.2	68.6	30.3	0.012	47.2	0.498	0.004	0.004	0.011	0.093	0.184	0.251	1.40	0.465	5.33	1.52	5.23	0.823	5.34	0.870	n.d	290
16DB25-2	Grt4	n.d	228	314	68.0	70.7	0.063	48.7	1.01	0.008	0.012	0.014	0.214	0.669	0.449	2.70	0.716	6.66	1.42	4.02	0.642	4.67	0.607	0.009	300
	Grt5	n.d	239	250	66.7	71.1	0.128	55.5	1.80	0.009	0.035	0.023	0.254	1.11	0.734	3.90	1.02	9.08	1.75	5.08	0.636	4.82	0.719	0.038	310
	Grt9	1.14	217	238	69.2	62.3	0.079	50.9	0.874	n.d	n.d	0.001	0.085	0.467	0.453	2.99	0.723	6.77	1.49	4.49	0.676	4.60	0.613	n.d	310
	Grt12	n.d	240	300	69.5	69.7	0.087	52.6	1.76	n.d	0.012	0.018	0.063	0.577	0.636	3.33	0.782	7.56	1.49	4.81	0.704	4.94	0.645	0.037	350
	Grt22	0.039	218	317	67.8	76.6	0.163	52.5	1.32	0.008	0.014	0.025	0.294	1.15	0.674	3.78	0.906	7.86	1.46	4.41	0.580	4.25	0.548	0.027	240
16DB27-1	Grt2	n.d	239	304	65.6	71.2	0.094	54.1	2.18	n.d	0.024	0.014	0.480	1.20	0.863	5.15	1.11	9.64	1.64	4.53	0.610	3.84	0.579	n.d	260
	Grt4	n.d	162	221	61.1	53.6	0.063	41.2	1.12	n.d	n.d	0.011	0.257	0.696	0.504	3.15	0.601	6.03	1.35	3.86	0.513	3.69	0.467	0.041	290
	Grt12	n.d	182	209	66.1	42.0	0.055	35.8	1.10	0.004	0.004	0.010	0.207	0.544	0.450	2.75	0.656	6.01	1.15	3.16	0.418	3.42	0.411	0.013	420
	Grt27	n.d	254	250	62.3	57.5	0.063	40.1	0.616	0.004	0.029	0.014	0.152	0.338	0.429	2.48	0.614	6.23	1.25	4.00	0.448	3.72	0.512	n.d	160
	Grt32	0.762	172	170	63.3	49.4	0.070	38.9	0.803	n.d	0.004	0.017	0.090	0.616	0.523	3.57	0.612	5.71	1.23	3.82	0.562	3.30	0.521	0.004	220
16DB27-4	Grt3	0.734	240	296	64.1	70.9	0.085	54.4	1.10	n.d	0.009	0.030	0.187	0.575	0.514	3.49	0.887	7.89	1.60	5.15	0.567	4.41	0.554	0.026	260
	Grt8	0.756	233	202	74.6	54.0	0.104	42.0	1.64	n.d	0.008	0.016	0.180	0.543	0.503	3.74	0.925	6.57	1.28	3.38	0.485	3.00	0.450	n.d	270
	Grt19	n.d	158	215	61.3	51.2	0.064	43.0	0.917	n.d	0.003	0.015	0.195	0.728	0.524	2.87	0.817	6.13	1.28	3.81	0.554	4.10	0.574	0.047	270
	Grt22	n.d	302	294	73.3	74.9	0.085	47.7	1.69	n.d	0.019	0.014	0.111	0.519	0.469	2.82	0.685	6.71	1.39	4.26	0.536	3.74	0.570	0.036	220
	Grt26	0.749	235	248	62.0	61.3	0.096	56.9	1.11	n.d	0.016	0.010	0.284	0.932	0.669	4.26	1.054	9.16	1.71	4.55	0.637	4.32	0.628	n.d	170
16DB27-2	Grt1	n.d	145	235	66.7	49.7	0.095	43.7	1.23	n.d	0.008	0.005	0.177	0.723	0.562	3.36	0.849	6.88	1.44	4.15	0.635	4.28	0.625	0.033	230
	Grt13	2.05	210	211	66.9	59.5	0.021	40.5	0.768	n.d	0.007	0.011	0.114	0.618	0.602	3.28	0.818	6.60	1.26	3.51	0.581	3.51	0.451	0.008	320
	Grt18	0.946	235	237	66.4	68.7	0.094	42.3	1.24	0.003	0.014	0.005	0.157	0.520	0.440	2.01	0.601	6.26	1.38	4.46	0.629	4.56	0.638	n.d	260
	Grt22	n.d	145	152	68.0	45.7	0.113	35.6	1.80	0.004	0.008	0.010	0.179	0.667	0.492	2.75	0.676	5.40	0.915	2.65	0.340	2.38	0.340	0.061	300
	Grt29	n.d	205	198	67.6	70.2	0.085	37.6	1.29	0.003	0.011	0.005	0.130	0.429	0.391	2.21	0.574	5.66	1.31	4.03	0.588	3.84	0.530	0.016	280
16DB27-7	Grt1	1.21	247	180	64.9	115	0.127	60.9	1.14	0.004	0.024	n.d	0.215	0.623	0.519	2.71	0.871	8.31	1.88	6.37	0.890	5.59	0.842	0.026	300
	Grt18	0.267	265	63.7	60.0	248	n.d	60.5	0.476	n.d	n.d	0.003	0.045	0.196	0.093	0.794	0.411	5.87	1.82	7.07	0.926	6.61	0.825	n.d	510
	Grt24	0.046	304	232	66.5	213	0.088	56.2	1.44	n.d	0.023	0.016	0.236	0.598	0.512	2.58	0.736	8.93	1.86	6.40	0.894	6.31	0.853	n.d	350
	Grt27	n.d	225	207	73.8	203	0.107	60.5	1.15	0.004	0.013	0.006	0.221	0.582	0.563	3.59	0.874	8.46	1.99	6.46	0.923	6.61	0.917	n.d	840
	Grt39	0.063	187	160	63.3	131	0.091	69.0	1.08	0.004	0.009	0.019	0.392	1.22	0.839	4.84	1.23	11.3	2.22	6.89	0.952	5.95	0.914	0.010	460

附表 2 金河桥榴辉岩中石榴石代表性傅里叶变换红外光谱分析结果
Appendix table 2 Representative FTIR analytical results for garnets in Jinheqiao eclogite

Sample	厚度(mm)	Spot	Group I		Group II		Group III		Group IV		Molecular water (10 ⁻⁶)	Structure water (10 ⁻⁶)	Total water (10 ⁻⁶)
			3 400~3 435 cm ⁻¹		3 540~3 580 cm ⁻¹		3 600~3 630 cm ⁻¹		3 635~3 655 cm ⁻¹				
			FWHH	Area	FWHH	Area	FWHH	Area	FWHH	Area			
16DB20-1	0.190	Grt1	174	21.71	87	14.23			51	2.47	822	632	1 454
	0.202	Grt4	169	9.62	99	8.90			55	1.50	343	370	713
	0.216	Grt9	98	1.51	96	1.28	58	1.28			71	121	192
	0.199	Grt14	173	10.06	107	13.51					364	488	852
	0.211	Grt15	157	6.59	82	3.52	68	12.32			225	540	765
16DB25-2	0.359	Grt1	152	29.36	107	31.74			56	3.67	588	710	1 298
	0.411	Grt5	147	26.86	108	27.97	68	6.81			470	609	1 079
	0.424	Grt15	104	6.75	74	8.57	62	6.29			115	252	367
	0.419	Grt24	155	15.16	119	23.82					260	409	669
16DB27-1	0.273	Grt1	157	37.71	87	27.59			47	3.37	994	816	1 810
	0.3	Grt17	156	5.39	99	4.61			46	0.83	129	131	260
	0.295	Grt21	96	4.90	150	5.12	71	1.47			119	161	280
	0.202	Grt33	140	3.05	90	3.44	65	3.41			109	244	353
16DB27-4	0.197	Grt1	173	14.2	110	9.79			42	0.99	518	394	912
	0.188	Grt5	165	8.71	102	6.35	71	4.56			333	418	751
	0.178	Grt6	128	4.02	100	4.64	42	0.58	44	0.66	162	238	400
	0.192	Grt7	152	5.18	94	4.59			48	0.73	194	199	393
	0.194	Grt11	154	17.82	113	16.60			48	1.72	661	679	1 340
16DB27-2	0.304	Grt1-1	126	6.84	98	8.21	64	2.56			162	255	417
	0.244	Grt3	152	9.07	88	8.02			55	2.17	267	301	568
	0.264	Grt8	138	4.27	101	3.71	25	0.16	40	0.55	116	121	237
	0.25	Grt10-R	168	18.14	108	17.71					522	510	1 032
	0.25	Grt10-C	163	11.07	107	12.99					318	374	692
	0.165	Grt45			54	0.32	34	0.29	44	0.31	0	72	72
	0.158	Grt46			37	0.09	38	0.25	37	0.23	0	26	26
16DB27-7	0.369	Grt1	165	28.40	82	21.16			44	2.74	553	466	1 019
	0.354	Grt6	163	14.22	96	10.70	20	0.23	52	2.04	289	263	552
	0.325	Grt10	150	20.11	127	28.10					445	622	1 067

0.296	Grt25	135	7.75	115	11.85				188	288	476
0.278	Grt28	146	8.82	101	11.01	64	4.69		228	407	635
