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Supplementary Material to "Isotopic Characterization of Apatite and Zircon: Crystallographic Integrity, Etching Effects, and Geochronological Implications"

Table S1 - LA-ICP-MS analytical data for selected apatite grains from sample BJ19C.

Grain - Spot	Pb(ppm)	$\pm 1\sigma$	Th(ppm)	$\pm 1\sigma$	U(ppm)	$\pm 1\sigma$	238U/206Pb	$\pm 1\sigma$	207Pb/206Pb	$\pm 1\sigma$	Conc. Age	$\pm 2\sigma$
BJ19C G01-1	17.89	0.66	19.22	0.77	30.03	1.10	6.204	1.675	0.191	1.630	570.5	10.5
BJ19C G03-1	21.98	0.81	34.62	1.37	63.99	2.33	10.821	1.483	0.079	1.636	535.4	14.1
BJ19C G03-2	12.25	0.46	14.50	0.58	30.69	1.13	9.318	1.677	0.112	1.856	552.2	14.7
BJ19C G04-1	22.89	0.84	19.40	0.78	54.36	1.98	8.832	1.510	0.110	1.569	581.3	13.9
BJ19C G05-1	39.71	1.44	39.76	1.58	64.69	2.36	6.058	1.393	0.189	1.285	582.2	8.9
BJ19C G06-1	19.09	0.70	11.26	0.46	38.82	1.42	7.563	1.543	0.147	1.540	580.1	12.2
BJ19C G08-1	15.03	0.56	14.13	0.57	29.96	1.10	7.416	1.639	0.147	1.675	588.3	13.0
BJ19C G11-1	15.01	0.56	18.10	0.73	34.30	1.26	8.503	1.616	0.139	1.677	546.0	12.7
BJ19C G15-1	12.00	0.45	13.34	0.54	20.67	0.76	6.408	1.743	0.190	1.729	561.7	10.9
BJ19C G15-2	22.55	0.83	39.80	1.58	49.31	1.80	8.137	1.513	0.125	1.534	590.9	13.3
BJ19C G16-1	25.43	0.93	19.83	0.79	55.03	2.01	8.052	1.474	0.139	1.462	568.8	11.9
BJ19C G16-2	29.45	1.08	24.42	0.98	63.45	2.32	8.017	1.443	0.131	1.425	585.9	12.3
BJ19C G19-1	14.20	0.53	14.16	0.57	33.84	1.24	8.872	1.633	0.133	1.713	538.4	13.0
BJ19C G20-1	13.28	0.50	20.14	0.81	31.65	1.16	8.869	1.685	0.126	1.816	550.3	14.0
BJ19C G24-1	14.52	0.54	22.88	0.92	30.65	1.12	7.857	1.634	0.147	1.681	564.4	12.7
BJ19C G26-1	22.38	0.82	36.50	1.45	36.60	1.34	6.089	1.559	0.186	1.499	586.3	10.1
BJ19C G27-1	23.42	0.86	30.09	1.20	55.25	2.02	8.783	1.502	0.131	1.530	546.0	12.2
BJ19C G29-1	21.60	0.80	22.30	0.89	47.27	1.73	8.150	1.532	0.147	1.542	549.6	11.7
BJ19C G30-1	16.62	0.62	18.46	0.74	31.51	1.16	7.059	1.638	0.176	1.634	553.5	11.0
BJ19C G32-1	24.28	0.89	27.46	1.10	56.66	2.07	8.689	1.486	0.122	1.517	566.5	12.8
BJ19C G34-1	15.11	0.56	18.06	0.73	28.83	1.06	7.109	1.664	0.181	1.664	542.5	10.8
BJ19C G36-1	23.72	0.88	25.08	1.01	54.11	1.98	8.501	1.496	0.131	1.530	560.0	12.3
BJ19C G41-1	34.87	1.28	26.82	1.08	89.98	3.29	9.618	1.423	0.096	1.467	565.3	13.5
BJ19C G43-1	21.90	0.81	18.76	0.76	44.45	1.63	7.568	1.521	0.154	1.513	566.7	11.5
BJ19C G44-1	20.50	0.76	29.95	1.20	49.18	1.80	8.943	1.547	0.118	1.633	560.6	13.4
BJ19C G46-1	23.39	0.87	18.42	0.74	57.85	2.12	9.284	1.550	0.116	1.643	547.0	13.3
BJ19C G55-1	26.29	0.97	42.38	1.70	67.43	2.47	9.563	1.463	0.089	1.566	581.4	14.5
BJ19C G55-2	39.02	1.44	67.92	2.71	95.27	3.48	9.105	1.420	0.093	1.480	599.6	14.3
BJ19C G57-1	14.36	0.54	18.09	0.73	29.64	1.09	7.700	1.686	0.157	1.752	554.6	12.4
BJ19C G58-1	26.43	0.98	31.20	1.25	72.95	2.67	10.295	1.462	0.082	1.593	555.7	14.3
BJ19C G60-1	23.92	0.89	32.93	1.32	65.54	2.40	10.220	1.513	0.087	1.668	550.8	14.4
BJ19C G63-1	27.88	1.03	21.72	0.88	69.64	2.55	9.226	1.448	0.098	1.532	582.7	14.0

Grain - Spot	Pb(ppm)	$\pm 1\sigma$	Th(ppm)	$\pm 1\sigma$	U(ppm)	$\pm 1\sigma$	238U/206Pb	$\pm 1\sigma$	207Pb/206Pb	$\pm 1\sigma$	Conc. Age	$\pm 2\sigma$
BJ19C G64-1	20.60	0.77	34.99	1.41	55.26	2.03	10.007	1.511	0.095	1.659	547.5	14.0
BJ19C G65-1	22.30	0.83	13.47	0.55	35.93	1.32	6.475	1.638	0.183	1.634	571.0	10.7
BJ19C G67-1	15.80	0.59	11.64	0.48	36.34	1.34	8.581	1.630	0.125	1.751	566.6	13.9
BJ19C G69-1	17.44	0.65	17.39	0.71	36.64	1.35	7.838	1.591	0.148	1.645	563.5	12.3
BJ19C G71-1	19.94	0.75	19.76	0.80	42.09	1.55	7.877	1.568	0.129	1.646	597.9	13.7
BJ19C G74-1	23.02	0.86	22.99	0.93	51.90	1.91	8.224	1.587	0.115	1.697	606.3	14.8
BJ19C G75-1	31.48	1.17	32.21	1.30	74.39	2.73	8.821	1.447	0.115	1.488	572.4	12.9
BJ19C G76-1	15.99	0.60	13.24	0.54	33.80	1.25	7.890	1.617	0.146	1.696	564.5	12.6
BJ19C G77-1	31.02	1.15	27.06	1.10	77.85	2.85	9.321	1.519	0.088	1.692	597.1	15.5
BJ19C G77-2	56.13	2.07	63.83	2.57	152.07	5.56	10.114	1.355	0.066	1.433	595.7	14.7
BJ19C G78-1	22.51	0.84	24.59	1.00	57.17	2.10	9.483	1.517	0.093	1.670	578.1	14.8
BJ19C G78-2	42.59	1.58	64.89	2.62	124.23	4.55	10.898	1.384	0.063	1.543	558.7	14.3
BJ19C G79-1	24.99	0.94	19.94	0.81	57.37	2.11	8.578	1.501	0.113	1.602	589.7	13.8
BJ19C G80-1	19.84	0.75	27.17	1.11	40.56	1.50	7.640	1.635	0.124	1.763	623.1	15.0
BJ19C G81-1	11.47	0.44	12.97	0.53	25.46	0.94	8.294	1.758	0.139	1.922	556.3	14.0
BJ19C G82-1	22.88	0.86	26.29	1.07	51.76	1.91	8.457	1.548	0.112	1.683	598.7	14.5
BJ19C G83-1	17.38	0.66	15.43	0.63	39.51	1.46	8.496	1.614	0.133	1.735	556.7	13.2
BJ19C G93-1	14.70	0.56	11.49	0.48	30.53	1.13	7.765	1.685	0.151	1.805	561.9	12.8
BJ19C G94-1	18.29	0.69	20.16	0.83	44.89	1.66	9.175	1.578	0.103	1.764	575.9	14.8
BJ19C G96-1	15.10	0.58	10.02	0.42	31.35	1.16	7.760	1.668	0.138	1.797	586.6	13.8

Notes: Uncertainties for elemental concentrations are reported at the 1σ absolute level (ppm), isotopic ratios at the 1σ relative level (%), and Concordia ages at the 2σ absolute level (Ma); ppm = parts per million; Conc. Age = Concordia age in millions of years (Ma). Raw data reduction was performed using the KJ software. Common-lead correction and Concordia age calculations were conducted using IsoplotR (Vermeesch, 2018).