Table DR1 LA-ICPMS zircon U-Th-Pb isotopic data for the late Paleoproterozoic granitoids in the western Kuruktag Block, northern Tarim Craton, NW China.

Analysis No.	Domain [b]	Th [c] (ppm)	U [c] (ppm)	Th/U	Ratios							Ages						
					$^{207}Pb/^{206}Pb$	1σ	$^{207}Pb/^{235}U$	1σ	$^{206}Pb/^{238}U$	1σ	ρ [d]	$^{207}Pb/^{206}Pb$	1σ	$^{207}Pb/^{235}U$	1σ	$^{206}Pb/^{238}U$	1σ	Disc. [e] %
Sample 11K88 (GPS:N41°37'53.6", E86°24'51.5"): monzogranite																		
11k88-01	I	231	300	0.77	0.11848	0.00146	5.55	0.08	0.33962	0.00424	0.90	1933	23	1908	12	1885	20	2.5
11k88-02	I	486	291	1.67	0.11826	0.00148	5.77	0.08	0.35376	0.00440	0.89	1930	23	1942	12	1953	21	-1.2
11k88-03	II	241	274	0.88	0.11877	0.00140	5.86	0.08	0.35762	0.00452	0.93	1938	22	1955	12	1971	21	-1.7
11k88-04	I	255	162	1.58	0.11828	0.00160	5.54	0.08	0.33986	0.00427	0.86	1930	25	1907	13	1886	21	2.3
11k88-05	II	366	191	1.91	0.11850	0.00135	5.71	0.08	0.34966	0.00454	0.97	1934	21	1933	12	1933	22	0.1
11k88-06	I	221	184	1.20	0.11831	0.00155	5.87	0.08	0.35992	0.00450	0.87	1931	24	1957	12	1982	21	-2.6
11k88-07	I	233	390	0.60	0.11830	0.00204	5.73	0.11	0.35162	0.00507	0.77	1931	32	1936	16	1942	24	-0.6
11k88-08	I	621	583	1.07	0.11761	0.00184	5.63	0.09	0.34703	0.00457	0.79	1920	29	1920	14	1920	22	0.0
11k88-09	II	164	132	1.24	0.11969	0.00157	6.12	0.09	0.37085	0.00469	0.87	1952	24	1993	13	2033	22	-4.0
11k88-10	I	163	212	0.77	0.11869	0.00144	5.86	0.08	0.35800	0.00457	0.92	1937	22	1955	12	1973	22	-1.8
11k88-11	I	205	152	1.35	0.11780	0.00169	5.65	0.09	0.34786	0.00437	0.82	1923	26	1924	13	1924	21	-0.1
11k88-12	II	167	105	1.60	0.11910	0.00158	5.77	0.08	0.35160	0.00451	0.87	1943	24	1942	13	1942	22	0.1
11k88-13	I	444	462	0.96	0.11838	0.00142	4.53	0.06	0.27745	0.00359	0.93	1932	22	1736	12	1579	18	22.4
11k88-14	II	175	106	1.66	0.11917	0.00158	6.01	0.09	0.36595	0.00472	0.87	1944	24	1978	13	2010	22	-3.3
11k88-15	I	166	236	0.70	0.11815	0.00188	5.49	0.09	0.33692	0.00428	0.77	1928	29	1899	14	1872	21	3.0
11k88-16	I	383	405	0.94	0.11844	0.00155	5.46	0.08	0.33438	0.00434	0.88	1933	24	1894	13	1860	21	3.9
11k88-17	I	274	313	0.88	0.11750	0.00162	5.62	0.08	0.34670	0.00436	0.84	1919	25	1919	13	1919	21	0.0
11k88-18	I	279	210	1.33	0.11776	0.00156	5.64	0.08	0.34747	0.00447	0.87	1923	24	1922	13	1923	21	0.0
11k88-19	I	287	241	1.19	0.11924	0.00164	5.79	0.09	0.35199	0.00467	0.86	1945	25	1944	13	1944	22	0.1
11k88-20	I	327	231	1.42	0.11828	0.00187	5.84	0.10	0.35825	0.00469	0.78	1930	29	1953	15	1974	22	-2.2
11k88-21	II	141	124	1.14	0.11799	0.00228	5.47	0.11	0.33628	0.00439	0.68	1926	35	1896	17	1869	21	3.0
11k88-22	I	304	297	1.02	0.11851	0.00175	5.40	0.08	0.33072	0.00416	0.80	1934	27	1885	13	1842	20	5.0
11k88-23	I	487	634	0.77	0.11629	0.00164	4.16	0.06	0.25931	0.00335	0.83	1900	26	1666	13	1486	17	27.9
Sample 11K86 (GPS:N41°37'51.5", E86°21'10.8"): monzogranite																		
11k86-01	I	293	294	1.00	0.11940	0.00167	6.12	0.10	0.37178	0.00494	0.85	1947	26	1993	14	2038	23	-4.5
11k86-02	II	288	277	1.04	0.11826	0.00138	5.59	0.08	0.34286	0.00473	0.99	1930	21	1914	12	1900	23	1.6
11k86-03	I	71	87	0.81	0.11823	0.00150	5.49	0.08	0.33678	0.00432	0.90	1930	23	1899	12	1871	21	3.2
11k86-04	I	250	263	0.95	0.11906	0.00135	6.04	0.08	0.36777	0.00465	0.95	1942	21	1981	12	2019	22	-3.8
11k86-05	II	244	122	1.99	0.11786	0.00146	5.95	0.08	0.36634	0.00459	0.90	1924	23	1969	12	2012	22	-4.4
11k86-06	I	258	176	1.47	0.11857	0.00142	5.66	0.08	0.34613	0.00435	0.92	1935	22	1925	12	1916	21	1.0
11k86-07	I	802	210	3.81	0.11879	0.00171	6.01	0.10	0.36696	0.00494	0.84	1938	26	1977	14	2015	23	-3.8
11k86-08	II	228	211	1.08	0.11890	0.00141	5.88	0.08	0.35897	0.00452	0.93	1940	22	1959	12	1977	21	-1.9
11k86-09	I	278	342	0.81	0.11843	0.00191	5.77	0.10	0.35365	0.00488	0.78	1933	30	1943	15	1952	23	-1.0
11k86-10	II	444	160	2.77	0.11823	0.00169	5.68	0.09	0.34847	0.00457	0.84	1930	26	1928	14	1927	22	0.2
11k86-11	I	354	381	0.93	0.11678	0.00201	5.64	0.10	0.35022	0.00481	0.75	1908	32	1922	16	1936	23	-1.4
11k86-12	I	650	291	2.23	0.11685	0.00152	5.30	0.08	0.32879	0.00462	0.94	1909	24	1868	13	1833	22	4.1
11k86-13	II	310	136	2.29	0.12023	0.00247	6.21	0.13	0.37475	0.00547	0.69	1960	38	2006	19	2052	26	-4.5
11k86-14	I	490	202	2.43	0.11891	0.00186	6.15	0.11	0.37524	0.00530	0.82	1940	29	1998	15	2054	25	-5.6
11k86-15	II	253	125	2.03	0.11892	0.00194	5.76	0.10	0.35160	0.00511	0.82	1940	30	1941	15	1942	24	-0.1
11k86-16	I	293	482	0.61	0.11660	0.00197	5.52	0.10	0.34338	0.00470	0.75	1905	31	1904	16	1903	23	0.1
11k86-17	I	146	232	0.63	0.11839	0.00164	5.83	0.09	0.35744	0.00458	0.84	1932	25	1951	13	1970	22	-1.9
11k86-18	II	396	239	1.66	0.11836	0.00223	5.73	0.11	0.35115	0.00495	0.71	1932	35	1936	17	1940	24	-0.4
11k86-19	I	588	541	1.09	0.11378	0.00229	4.79	0.10	0.30551	0.00446	0.69	1861	37	1784	18	1719	22	8.3
11k86-20	II	400	441	0.91	0.11722	0.00168	5.24	0.08	0.32446	0.00435	0.84	1914	26	1860	14	1811	21	5.7
11k86-21	I	447	421	1.06	0.11812	0.00242	5.68	0.12	0.34866	0.00491	0.66	1928	38	1928	18	1928	23	0.0
11k86-22	II	166	180	0.92	0.11849	0.00193	5.88	0.10	0.35999	0.00474	0.76	1934	30	1958	15	1982	22	-2.4
Sample 11K106 (GPS:N41°29'42.2", E86°43'47.8"): garnet-bearing granodiorite																		

11k106-01	I	134	348	0.39	0.11919	0.00166	5.91	0.09	0.35957	0.00503	0.88	1944	25	1962	14	1980	24	-1.8
11k106-02	I	209	268	0.78	0.11844	0.00158	5.56	0.09	0.34081	0.00482	0.92	1933	24	1911	13	1891	23	2.2
11k106-03	II	56	16	3.44	0.11882	0.00222	5.65	0.11	0.34515	0.00503	0.75	1939	34	1924	17	1911	24	1.5
11k106-04	I	516	69	7.48	0.11878	0.00168	5.75	0.09	0.35077	0.00466	0.86	1938	26	1938	13	1938	22	0.0
11k106-05	I	85	180	0.47	0.11904	0.00196	5.97	0.11	0.36358	0.00567	0.88	1942	30	1972	15	1999	27	-2.9
11k106-06	I	126	170	0.74	0.11856	0.00136	5.72	0.08	0.34983	0.00449	0.96	1935	21	1934	12	1934	21	0.1
11k106-07	I	127	203	0.63	0.11915	0.00183	6.06	0.10	0.36928	0.00570	0.95	1944	28	1985	14	2026	27	-4.0
11k106-08	II	49	14	3.43	0.11873	0.00238	5.65	0.12	0.34503	0.00525	0.75	1937	37	1924	18	1911	25	1.4
11k106-09	II	41	22	1.90	0.11878	0.00238	5.59	0.11	0.34106	0.00548	0.80	1938	37	1914	17	1892	26	2.4
11k106-10	I	316	51	6.14	0.11734	0.00244	5.50	0.12	0.33955	0.00499	0.70	1916	38	1900	18	1885	24	1.6
11k106-11	I	162	126	1.29	0.11928	0.00167	5.96	0.09	0.36222	0.00485	0.86	1945	26	1970	14	1993	23	-2.4
11k106-12	I	445	338	1.32	0.11902	0.00155	5.88	0.09	0.35851	0.00497	0.93	1942	24	1959	13	1975	24	-1.7
11k106-13	I	254	484	0.52	0.11752	0.00162	5.61	0.09	0.34646	0.00445	0.84	1919	25	1918	13	1918	21	0.1
11k106-14	II	60	17	3.58	0.11918	0.00276	5.78	0.13	0.35186	0.00605	0.76	1944	42	1944	20	1943	29	0.1
11k106-15	I	389	452	0.86	0.11829	0.00166	5.63	0.09	0.34537	0.00457	0.85	1931	26	1921	13	1912	22	1.0
11k106-16	II	20	21	0.95	0.11815	0.00237	5.67	0.12	0.34780	0.00542	0.76	1928	37	1926	18	1924	26	0.2
11k106-17	I	237	313	0.76	0.11840	0.00193	5.70	0.10	0.34934	0.00472	0.77	1932	30	1932	15	1931	23	0.1
11k106-18	II	103	48	2.15	0.14661	0.00214	8.70	0.14	0.43049	0.00611	0.90	2307	26	2308	14	2308	28	0.0
11k106-19	I	171	63	2.73	0.11704	0.00221	5.56	0.11	0.34477	0.00461	0.70	1912	35	1910	16	1910	22	0.1
11k106-20	II	465	18	25.16	0.11879	0.00347	5.78	0.17	0.35317	0.00648	0.64	1938	53	1944	25	1950	31	-0.6
11k106-21	II	48	16	2.95	0.12020	0.00240	5.88	0.12	0.35469	0.00532	0.73	1959	36	1958	18	1957	25	0.1
11k106-22	I	254	378	0.67	0.11779	0.00163	5.65	0.09	0.34759	0.00445	0.84	1923	25	1923	13	1923	21	0.0
Sample 12K49 (GPS:N41°27'18.8", E86°49'26.2"): garnet-bearing granodiorite																		
12K49-11	I	318	233	1.37	0.11860	0.00157	5.77	0.09	0.35263	0.00506	0.90	1935	24	1941	14	1947	24	-0.6
12K49-12	II	150	133	1.13	0.11856	0.00178	5.83	0.10	0.35654	0.00509	0.84	1935	27	1951	15	1966	24	-1.6
12K49-13	II	111	300	0.37	0.11848	0.00166	4.94	0.08	0.30254	0.00459	0.91	1933	26	1809	14	1704	23	13.4
12K49-14	I	199	166	1.20	0.12146	0.00162	6.24	0.10	0.37250	0.00541	0.91	1978	24	2010	14	2041	25	-3.1
12K49-15	II	148	93	1.58	0.11695	0.00164	5.70	0.09	0.35317	0.00510	0.88	1910	26	1931	14	1950	24	-2.1
12K49-16	II	275	298	0.92	0.11771	0.00159	5.68	0.09	0.34994	0.00501	0.89	1922	25	1928	14	1934	24	-0.6
12K49-17	I	201	169	1.19	0.11833	0.00178	5.71	0.10	0.35025	0.00501	0.84	1931	28	1934	15	1936	24	-0.3
12K49-18	I	140	591	0.24	0.11918	0.00160	5.48	0.09	0.33383	0.00489	0.91	1944	25	1898	14	1857	24	4.7
12K49-19	II	233	147	1.59	0.11654	0.00168	5.96	0.10	0.37079	0.00531	0.86	1904	26	1970	15	2033	25	-6.3
12K49-20	I	215	193	1.11	0.11858	0.00177	5.75	0.10	0.35157	0.00506	0.84	1935	27	1939	15	1942	24	-0.4
12k49-21	II	147	377	0.39	0.11859	0.00209	5.49	0.11	0.33586	0.00529	0.80	1935	32	1899	17	1867	26	3.6
12k49-22	I	111	331	0.34	0.11757	0.00203	5.81	0.11	0.35861	0.00515	0.77	1920	32	1948	16	1976	24	-2.8
12k49-23	I	113	223	0.51	0.11837	0.00214	5.97	0.12	0.36598	0.00535	0.75	1932	33	1972	17	2010	25	-3.9
12k49-24	I	167	146	1.14	0.11934	0.00217	5.74	0.11	0.34900	0.00507	0.75	1946	33	1938	17	1930	24	0.8
12k49-25	I	179	151	1.18	0.11849	0.00214	5.55	0.11	0.33963	0.00493	0.75	1934	33	1908	17	1885	24	2.6
12k49-26	I	144	122	1.18	0.11770	0.00225	5.31	0.11	0.32726	0.00482	0.73	1922	35	1871	17	1825	23	5.3
12k49-27	I	90	75	1.19	0.11516	0.00203	4.90	0.09	0.30867	0.00458	0.77	1882	32	1802	16	1734	23	8.5
12k49-28	I	211	155	1.36	0.11848	0.00203	5.27	0.10	0.32282	0.00478	0.78	1933	31	1865	16	1803	23	7.2
12k49-29	I	223	255	0.87	0.11668	0.00212	5.23	0.10	0.32521	0.00474	0.74	1906	33	1858	17	1815	23	5.0
12k49-30	I	160	139	1.15	0.11930	0.00251	5.87	0.13	0.35659	0.00534	0.68	1946	38	1956	19	1966	25	-1.0
Sample 11K101 (GPS:N41°31'43.7", E86°35'52.5"): tonalite																		
11K101-01	II	22	50	0.45	0.11824	0.00160	5.68	0.08	0.34862	0.00450	0.87	1930	25	1929	13	1928	22	0.1
11K101-02	II	39	66	0.60	0.11925	0.00167	5.78	0.09	0.35187	0.00474	0.87	1945	26	1944	13	1944	23	0.1
11K101-03*	I	167	606	0.28	0.13317	0.00288	3.41	0.06	0.18558	0.00239	0.74	2140	39	1506	14	1097	13	95.1
11K101-04	I	28	61	0.46	0.11856	0.00140	5.72	0.08	0.34987	0.00450	0.94	1935	22	1934	12	1934	21	0.1
11K101-05	II	8	19	0.45	0.11753	0.00204	5.62	0.10	0.34678	0.00480	0.77	1919	32	1919	16	1919	23	0.0
11K101-06	I	65	299	0.22	0.11845	0.00160	5.48	0.08	0.33553	0.00442	0.87	1933	25	1897	13	1865	21	3.6
11K101-07	I	149	430	0.35	0.11839	0.00127	5.49	0.07	0.33616	0.00428	0.99	1932	20	1898	11	1868	21	3.4
11K101-08	I	23	81	0.29	0.11917	0.00224	5.83	0.12	0.35501	0.00521	0.74	1944	34	1951	17	1958	25	-0.7
11K101-09	I	1690	2258	0.75	0.11873	0.00137	4.32	0.06	0.26420	0.00367	0.99	1937	21	1697	12	1511	19	28.2
11K101-10	II	15	32	0.48	0.11826	0.00160	5.96	0.09	0.36574	0.00471	0.87	1930	25	1970	13	2009	22	-3.9

11K101-11	II	18	44	0.40	0.11881	0.00194	5.75	0.10	0.35091	0.00490	0.80	1938	30	1938	15	1939	23	-0.1
11k101-12	I	113	257	0.44	0.11782	0.00141	5.62	0.08	0.34586	0.00444	0.92	1923	22	1919	12	1915	21	0.4
11k101-13	II	38	112	0.34	0.11861	0.00181	4.72	0.08	0.28868	0.00389	0.81	1935	28	1771	14	1635	19	18.3
11k101-14	I	20	72	0.28	0.11868	0.00155	5.18	0.08	0.31686	0.00408	0.89	1936	24	1850	12	1774	20	9.1
11k101-15	II	16	64	0.25	0.11869	0.00166	5.34	0.08	0.32611	0.00414	0.84	1937	26	1875	13	1819	20	6.5
11k101-16	I	81	286	0.28	0.11923	0.00150	5.77	0.08	0.35119	0.00453	0.90	1945	23	1942	12	1940	22	0.3
11k101-17	I	56	265	0.21	0.11755	0.00161	5.59	0.08	0.34493	0.00436	0.84	1919	25	1915	13	1910	21	0.5
11k101-18	I	49	98	0.50	0.11792	0.00154	6.16	0.09	0.37902	0.00479	0.87	1925	24	1999	13	2072	22	-7.1
11k101-19	II	3	20	0.13	0.11757	0.00201	5.63	0.10	0.34776	0.00495	0.79	1920	31	1921	16	1924	24	-0.2
11k101-20	II	3	22	0.12	0.11942	0.00205	5.81	0.10	0.35280	0.00490	0.77	1948	31	1948	16	1948	23	0.0
11k101-21	I	75	166	0.45	0.11852	0.00188	5.72	0.10	0.34988	0.00495	0.81	1934	29	1934	15	1934	24	0.0
11k101-22	II	12	40	0.29	0.11724	0.00178	5.59	0.09	0.34616	0.00475	0.83	1915	28	1915	14	1916	23	-0.1
Sample 12K92 (GPS:N41°31'50.1", E86°48'13.1"): trondhjemite																		
12K92-1-01	I	92	126	0.73	0.11932	0.00173	5.75	0.09	0.34928	0.00487	0.85	1946	27	1938	14	1931	23	0.8
12K92-1-02	II	26	72	0.36	0.11819	0.00181	5.87	0.10	0.36011	0.00504	0.82	1929	28	1956	15	1983	24	-2.7
12K92-1-03	I	102	103	0.99	0.11863	0.00188	5.87	0.10	0.35893	0.00519	0.81	1936	29	1957	15	1977	25	-2.1
12K92-1-04	I	140	455	0.31	0.11980	0.00175	5.84	0.10	0.35372	0.00508	0.85	1953	27	1953	15	1952	24	0.1
12K92-1-05	II	80	101	0.79	0.12037	0.00232	5.59	0.12	0.33650	0.00532	0.76	1962	35	1914	18	1870	26	4.9
12K92-1-06	II	43	81	0.52	0.11937	0.00188	5.79	0.10	0.35178	0.00476	0.79	1947	29	1945	15	1943	23	0.2
12K92-1-07	I	117	101	1.16	0.11882	0.00185	5.41	0.09	0.33039	0.00456	0.80	1939	29	1887	15	1840	22	5.4
12K92-1-08	I	1126	1179	0.95	0.11928	0.00214	5.22	0.10	0.31765	0.00478	0.76	1945	33	1856	17	1778	23	9.4
12K92-1-09	II	46	111	0.41	0.11888	0.00187	5.79	0.10	0.35340	0.00481	0.79	1939	29	1945	15	1951	23	-0.6
12K92-1-10	I	76	367	0.21	0.11852	0.00179	5.43	0.09	0.33244	0.00448	0.80	1934	28	1890	14	1850	22	4.5
12K92-1-11	II	97	151	0.64	0.11868	0.00192	5.94	0.10	0.36315	0.00490	0.77	1936	30	1967	15	1997	23	-3.1
12K92-1-12	I	124	372	0.33	0.12287	0.00195	5.64	0.10	0.33303	0.00451	0.78	1998	29	1922	15	1853	22	7.8

Note:

a: * represents analysis with high common lead that has been corrected using the Andersen's (2002) EXCEL program ComPbCorr#3 15G;

b: zircon domain defined by CL images: I - magmatic domain with blurred oscillatory zoning; II - metamorphic domain with patchy zoning or homogeneous internal structure.

c: Th-U contents were calculated using the background-corrected counts of ^{232}Th and ^{238}U of each analysis relative to those of the standard zircon GJ-1 in the same run (average Th = 8ppm, U = 330 ppm,

d: error coefficient = relative error of $^{206}Pb/^{238}U$/relative error of $^{207}Pb/^{235}U$;

e: discordance = ($^{207}Pb/^{206Pb}$ age/$^{206}Pb/^{238}U$ age - 1)*100.

Table DR2 SHRIMP-IIe/MC O isotopic data for zircons from the late Paleoproterozoic granitoids and the standard zircon (BR266) in the western Kuruktag Block, northern Tarim Craton.

Analysis No.	domain [a]	$^{18}O/^{16}O$ [b]	2 s.e. [b]	$\delta^{18}O$ [c] (‰)	2 s.e. [c] (‰)	2σ [d] (‰)
Sample 11K88 (GPS:N41°37'53.6", E86°24'51.5"): monzogranite						
11K88-1.1	I	0.002042899	0.000000388	10.17	0.19	0.62
11K88-1.2	II	0.002043649	0.000000393	10.54	0.19	0.62
11K88-2.1	II	0.002043995	0.000000431	10.70	0.21	0.63
11K88-3.1	II	0.002043767	0.000000359	10.59	0.18	0.62
11K88-4.1	I	0.002041941	0.000000314	9.70	0.15	0.61
11K88-5.1	I	0.002043623	0.000000393	10.52	0.19	0.62
11K88-5.2	II	0.002042729	0.000000268	10.09	0.13	0.60
11K88-6.1	II	0.002043740	0.000000308	10.58	0.15	0.61
11K88-7.1	I	0.002044016	0.000000424	10.71	0.21	0.63
11K88-8.1	I	0.002044895	0.000000433	11.14	0.21	0.63
11K88-9.1	I	0.002041634	0.000000423	9.55	0.21	0.63
mean value and 2σ standard deviation				***10.39 ± 0.94***		
Sample 12K50 (GPS:N41°26'10.8", E86°51'41.3"): quartz diorite						
12K50-1.1	I	0.002044353	0.000000449	9.74	0.22	0.63
12K50-2.1	I	0.002045254	0.000000606	10.18	0.30	0.66
12K50-3.1	I	0.002044875	0.000000589	9.99	0.29	0.66
12K50-4.1	I	0.002043665	0.000000833	9.40	0.41	0.72
12K50-5.1	I	0.002044402	0.000000435	9.76	0.21	0.63
12K50-6.1	I	0.002044806	0.000000471	9.96	0.23	0.63
12K50-7.1	II	0.002043906	0.000000352	9.52	0.17	0.61
12K50-8.1	I	0.002043576	0.000000442	9.36	0.22	0.63
12K50-9.1	I	0.002045599	0.000000597	10.35	0.29	0.66
12K50-12.1	I	0.002043407	0.000000759	9.28	0.37	0.70
12K50-13.1	I	0.002041586	0.00000037	8.39	0.18	0.62
mean value and 2σ standard deviation				***9.63 ± 1.07***		
Sample 12K92 (GPS:N41°31'50.1", E86°48'13.1"): trondhjemite						
12K92-1.1	I	0.002038075	0.000000353	6.68	0.17	0.61
12K92-2.1	II	0.002036766	0.000000719	6.04	0.35	0.69
12K92-3.1	I	0.002035066	0.000000404	5.21	0.2	0.62
12K92-4.1	I	0.002036293	0.000000278	5.81	0.14	0.61
12K92-5.1	II	0.002037163	0.000000552	6.23	0.27	0.65
12K92-6.1	I	0.002038203	0.000000707	6.74	0.35	0.69
12K92-7.1	II	0.002033886	0.000000491	4.64	0.24	0.64
12K92-8.1	I	0.002037111	0.000000467	6.21	0.23	0.63
12K92-9.1	I	0.002040564	0.000000544	7.89	0.27	0.65
12K92-10.1	I	0.002038235	0.000000312	6.76	0.15	0.61
12K92-11.1	I	0.002037627	0.000000457	6.46	0.22	0.63
12K92-12.1	I	0.002036217	0.00000055	5.77	0.27	0.65
12K92-13.1	I	0.002037641	0.000000853	6.47	0.42	0.72
12K92-14.1	I	0.002035707	0.000000515	5.52	0.25	0.64
12K92-15.1	I	0.002036112	0.000000677	5.72	0.33	0.68
mean value and 2σ standard deviation				***6.14 ± 1.54***		
Standard Zircon BR266						
BR266-1		0.00205300	0.00000045	13.53	0.22	
BR266-2		0.00205204	0.00000033	13.06	0.16	
BR266-3		0.00205311	0.00000030	13.59	0.15	
BR266-8		0.00205222	0.00000081	13.15	0.40	
BR266-10		0.00205306	0.00000043	13.56	0.21	
BR266-11		0.00205171	0.00000027	12.90	0.13	
BR266-12		0.00205139	0.00000045	12.74	0.22	
BR266-13		0.00205315	0.00000041	13.60	0.20	
BR266-15		0.00205098	0.00000048	12.97	0.23	
BR266-16		0.00205132	0.00000069	13.13	0.34	
BR266-17		0.00205184	0.00000080	13.39	0.39	
BR266-19		0.00205076	0.00000048	12.86	0.24	
BR266-20		0.00205230	0.00000043	13.61	0.21	
BR266-20		0.00205093	0.00000059	12.94	0.29	
BR266-21		0.00205163	0.00000047	13.29	0.23	
BR266-24		0.00205225	0.00000039	13.59	0.19	
BR266-25		0.00205210	0.00000077	13.51	0.38	
BR266-26		0.00205193	0.00000070	13.43	0.34	
BR266-27		0.00205094	0.00000026	12.95	0.13	
BR266-28		0.00205200	0.00000076	13.47	0.37	
BR266-30		0.00205217	0.00000049	13.55	0.24	
BR266-1		0.00204838	0.00000051	12.84	0.25	
BR266-2		0.00204934	0.00000052	13.31	0.25	
BR266-3		0.00204847	0.00000031	12.89	0.15	
BR266-4		0.00204879	0.00000056	13.04	0.27	
BR266-5		0.00204907	0.00000095	13.18	0.46	
BR266-8		0.00204891	0.00000022	13.10	0.11	
BR266-9		0.00204981	0.00000038	13.54	0.18	
BR266-13		0.00204996	0.00000053	13.62	0.26	
BR266-14		0.00204896	0.00000057	13.13	0.28	
BR266-15		0.00205033	0.00000028	13.80	0.13	
BR266-18		0.00204919	0.00000033	13.24	0.16	
mean value and 2σ standard deviation (reproducibility)				***13.27 ± 0.59***		

Note:

a: I = magmatic domain; II - metamorphic domain.

b: measured zircon $^{18}O/^{16}O$ ratios with 2 s.e. internal errors.

c: corrected $\delta^{18}O$ (VSMOW) with 2 s.e. internal error.

d: the 2σ uncertainties are quadratic addtions of the within-run precision and the daily reproducibility of the standard zircon BR266 (2σ = 0.59‰, n = 32)

Table DR3 LA-MC-ICPMS zircon Lu-Hf isotopic data for the late Paleoproterozoic granitoids in the western Kuruktag Block, northern Tarim Craton, NW China

sample no.	t (Ma) [a]	2σ [a]	domain [b]	$^{176}Yb/^{177}Hf$	2s.e. [c]	$^{176}Lu/^{177}Hf$	2s.e. [c]	$^{176}Hf/^{177}Hf$	2s.e. [c]	$^{176}Hf/^{177}Hf_{(t)}$ [d]	2σ [e]	$\varepsilon Hf_{(t)}$ [d]	2σ [e]	T_{DM} [f]	T_{DM}^2 [f]
Sample 11K88 (GPS:N41°37'53.6'', E86°24'51.5''): monzogranite															
(on LA-ICPMS mount)															
11K88-01	1934	6	I	0.008965	0.000041	0.000333	0.000002	0.281340	0.000012	0.281328	0.000031	-7.9	1.1	2622	3049
11K88-02	1934	6	I	0.011312	0.000238	0.000415	0.000011	0.281312	0.000014	0.281297	0.000032	-9.0	1.1	2665	3115
11K88-03	1934	6	II	0.009046	0.000131	0.000325	0.000007	0.281315	0.000013	0.281303	0.000032	-8.8	1.1	2655	3103
11K88-04	1934	6	I	0.007358	0.000258	0.000246	0.000007	0.281365	0.000013	0.281356	0.000032	-7.0	1.1	2583	2989
11K88-05	1934	6	II	0.010586	0.000206	0.000367	0.000008	0.281352	0.000014	0.281339	0.000032	-7.6	1.1	2608	3025
11K88-06	1934	6	I	0.008766	0.000098	0.000322	0.000003	0.281349	0.000012	0.281337	0.000032	-7.6	1.1	2609	3029
11K88-07	1934	6	I	0.010177	0.000113	0.000392	0.000005	0.281340	0.000012	0.281326	0.000031	-8.0	1.1	2626	3053
11K88-08	1934	6	I	0.011985	0.000195	0.000442	0.000006	0.281311	0.000014	0.281295	0.000032	-9.1	1.1	2669	3121
11K88-09	1934	6	II	0.006095	0.000052	0.000227	0.000002	0.281361	0.000014	0.281353	0.000032	-7.0	1.1	2586	2994
11K88-10	1934	6	I	0.006578	0.000078	0.000227	0.000003	0.281382	0.000012	0.281374	0.000032	-6.3	1.1	2559	2950
11K88-11	1934	6	I	0.003660	0.000098	0.000127	0.000003	0.281389	0.000013	0.281384	0.000032	-5.9	1.1	2544	2927
11K88-12	1934	6	II	0.005609	0.000084	0.000196	0.000002	0.281374	0.000012	0.281367	0.000031	-6.6	1.1	2568	2965
11K88-13	1934	6	I	0.007929	0.000205	0.000271	0.000009	0.281334	0.000012	0.281324	0.000031	-8.1	1.1	2626	3057
11K88-14	1934	6	II	0.007412	0.000068	0.000260	0.000003	0.281372	0.000014	0.281363	0.000032	-6.7	1.1	2574	2973
11K88-15	1934	6	I	0.010382	0.000167	0.000375	0.000006	0.281354	0.000013	0.281341	0.000032	-7.5	1.1	2606	3021
11K88-16	1934	6	I	0.009854	0.000177	0.000356	0.000006	0.281371	0.000014	0.281358	0.000032	-6.9	1.1	2582	2984
11K88-17	1934	6	I	0.007873	0.000282	0.000274	0.000009	0.281344	0.000014	0.281334	0.000032	-7.7	1.1	2612	3035
11K88-18	1934	6	I	0.010115	0.000214	0.000361	0.000008	0.281348	0.000015	0.281334	0.000033	-7.7	1.2	2614	3035
11K88-19	1934	6	I	0.006443	0.000036	0.000247	0.000002	0.281387	0.000014	0.281378	0.000032	-6.2	1.1	2553	2940
11K88-20	1934	6	I	0.010202	0.000094	0.000369	0.000006	0.281373	0.000014	0.281360	0.000032	-6.8	1.1	2580	2980
11K88-21	1934	6	II	0.006078	0.000014	0.000212	0.000001	0.281375	0.000012	0.281368	0.000031	-6.5	1.1	2567	2963
11K88-22	1934	6	I	0.009210	0.000129	0.000327	0.000006	0.281349	0.000012	0.281337	0.000032	-7.6	1.1	2610	3030
11K88-23	1934	6	I	0.015503	0.000138	0.000554	0.000004	0.281339	0.000013	0.281319	0.000032	-8.3	1.1	2638	3069
(on SHRIMP mount)															
11K88-1.1	1940	5	I	0.016670	0.000754	0.000531	0.000022	0.281383	0.000019	0.281363	0.000035	-6.5	1.2	2578	2968
11K88-1.2	1940	5	II	0.008305	0.000059	0.000276	0.000003	0.281372	0.000020	0.281361	0.000035	-6.6	1.2	2576	2972
11K88-2.1	1940	5	II	0.006308	0.000411	0.000193	0.000013	0.281323	0.000018	0.281316	0.000034	-8.2	1.2	2635	3070
11K88-3.1	1940	5	II	0.005694	0.000109	0.000180	0.000004	0.281342	0.000019	0.281335	0.000035	-7.5	1.2	2609	3029
11K88-4.1	1940	5	I	0.011235	0.000189	0.000366	0.000004	0.281458	0.000025	0.281444	0.000038	-3.7	1.3	2466	2793
11K88-5.1	1940	5	I	0.010512	0.000220	0.000342	0.000008	0.281383	0.000016	0.281371	0.000033	-6.3	1.2	2565	2952
11K88-5.2	1940	5	II	0.006491	0.000029	0.000207	0.000001	0.281362	0.000017	0.281355	0.000034	-6.8	1.2	2584	2987
11K88-6.1	1940	5	II	0.005939	0.000031	0.000195	0.000001	0.281379	0.000019	0.281372	0.000035	-6.2	1.2	2561	2950
11K88-7.1	1940	5	I	0.015597	0.000058	0.000487	0.000002	0.281417	0.000022	0.281399	0.000036	-5.3	1.3	2529	2891
11K88-8.1	1940	5	I	0.012642	0.000104	0.000412	0.000003	0.281393	0.000017	0.281378	0.000034	-6.0	1.2	2557	2937
11K88-9.1	1940	5	I	0.007893	0.000119	0.000261	0.000004	0.281428	0.000019	0.281418	0.000035	-4.6	1.2	2500	2850
Sample 11K86 (GPS:N41°37'51.5'', E86°21'10.8''): monzogranite															
11K86-01	1930	6	I	0.008166	0.000099	0.000309	0.000003	0.281331	0.000031	0.281319	0.000043	-8.3	1.5	2633	3070
11K86-03	1930	6	I	0.008375	0.000084	0.000318	0.000002	0.281252	0.000056	0.281241	0.000063	-11.1	2.2	2739	3240
11K86-04	1930	6	I	0.004641	0.000059	0.000153	0.000001	0.281371	0.000014	0.281366	0.000032	-6.7	1.1	2568	2969
11K86-05	1930	6	II	0.004091	0.000036	0.000139	0.000001	0.281360	0.000013	0.281355	0.000032	-7.1	1.1	2583	2993
11K86-06	1930	6	I	0.006063	0.000128	0.000213	0.000003	0.281346	0.000014	0.281338	0.000032	-7.7	1.1	2607	3030
11K86-07	1930	6	I	0.006126	0.000055	0.000220	0.000002	0.281358	0.000015	0.281350	0.000033	-7.3	1.2	2591	3004
11K86-08	1930	6	II	0.004688	0.000045	0.000152	0.000001	0.281361	0.000014	0.281355	0.000032	-7.1	1.1	2582	2992
11K86-09	1930	6	I	0.004396	0.000174	0.000150	0.000007	0.281314	0.000031	0.281308	0.000043	-8.7	1.5	2645	3094
11K86-10	1930	6	II	0.004557	0.000024	0.000150	0.000000	0.281360	0.000012	0.281354	0.000031	-7.1	1.1	2584	2995
11K86-11	1930	6	I	0.010373	0.000059	0.000397	0.000003	0.281354	0.000015	0.281340	0.000033	-7.6	1.2	2607	3026
11K86-12	1930	6	I	0.007184	0.000044	0.000265	0.000001	0.281340	0.000015	0.281331	0.000033	-7.9	1.2	2617	3045
11K86-13	1930	6	II	0.004662	0.000014	0.000169	0.000001	0.281361	0.000013	0.281355	0.000032	-7.1	1.1	2583	2992
11K86-14	1930	6	I	0.007608	0.000177	0.000275	0.000006	0.281328	0.000035	0.281318	0.000045	-8.4	1.6	2635	3073
11K86-16	1930	6	I	0.009987	0.000229	0.000343	0.000008	0.281339	0.000023	0.281326	0.000037	-8.1	1.3	2624	3055
11K86-17	1930	6	I	0.005225	0.000172	0.000176	0.000005	0.281334	0.000014	0.281328	0.000032	-8.0	1.1	2619	3052
11K86-18	1930	6	II	0.005520	0.000096	0.000181	0.000001	0.281353	0.000035	0.281347	0.000045	-7.4	1.6	2594	3011

Sample 12K50 (GPS:N41°26'10.8'', E86°51'41.3''): quartz diorite

(on LA-ICPMS mount)

12K50-01	1929	17	I	0.010587	0.000075	0.000356	0.000003	0.281430	0.000020	0.281417	0.000035	-4.9	1.2	2503	2858
12K50-03	1929	17	I	0.007053	0.000044	0.000237	0.000002	0.281362	0.000020	0.281353	0.000035	-7.1	1.2	2586	2997
12K50-05	1929	17	I	0.011195	0.000076	0.000367	0.000002	0.281429	0.000020	0.281416	0.000035	-4.9	1.2	2505	2862
12K50-06	1929	17	I	0.018058	0.000146	0.000565	0.000005	0.281407	0.000019	0.281386	0.000035	-6.0	1.2	2548	2926
12K50-10	1929	17	I	0.003717	0.000025	0.000106	0.000001	0.281410	0.000018	0.281406	0.000034	-5.3	1.2	2514	2883
12K50-11	1929	17	I	0.017403	0.000140	0.000573	0.000004	0.281460	0.000023	0.281439	0.000037	-4.1	1.3	2476	2811
12K50-15	1929	17	I	0.011631	0.000390	0.000366	0.000011	0.281427	0.000019	0.281413	0.000035	-5.0	1.2	2508	2867
12K50-16	1929	17	I	0.010082	0.000044	0.000334	0.000001	0.281438	0.000022	0.281426	0.000037	-4.6	1.3	2491	2840
12K50-17	1929	17	I	0.016454	0.000200	0.000516	0.000007	0.281442	0.000020	0.281423	0.000035	-4.7	1.2	2497	2845
12K50-20	1929	17	I	0.008794	0.000123	0.000281	0.000003	0.281433	0.000017	0.281423	0.000033	-4.7	1.2	2494	2847

(on SHRIMP mount)

12K50-1.1	1929	17	I	0.032241	0.000135	0.001029	0.000006	0.281385	0.000022	0.281347	0.000036	-7.4	1.3	2608	3010
12K50-2.1	1929	17	I	0.012531	0.000178	0.000418	0.000005	0.281432	0.000022	0.281417	0.000037	-4.9	1.3	2504	2859
12K50-3.1	1929	17	I	0.015779	0.000206	0.000509	0.000006	0.281381	0.000020	0.281363	0.000035	-6.8	1.2	2579	2977
12K50-4.1	1929	17	I	0.007174	0.000025	0.000249	0.000001	0.281421	0.000020	0.281412	0.000035	-5.1	1.2	2508	2869
12K50-5.1	1929	17	I	0.011609	0.000070	0.000401	0.000002	0.281390	0.000021	0.281375	0.000036	-6.4	1.3	2560	2949
12K50-6.1	1929	17	I	0.006677	0.000089	0.000194	0.000003	0.281392	0.000019	0.281385	0.000035	-6.0	1.2	2543	2929
12K50-6.2	1929	17	II	0.013738	0.000069	0.000484	0.000003	0.281369	0.000030	0.281351	0.000042	-7.2	1.5	2594	3002
12K50-7.1	1929	17	II	0.011795	0.000071	0.000410	0.000003	0.281419	0.000029	0.281404	0.000041	-5.3	1.5	2521	2887
12K50-7.2	1929	17	I	0.009049	0.000029	0.000313	0.000001	0.281420	0.000020	0.281408	0.000035	-5.2	1.2	2514	2878
12K50-8.1	1929	17	I	0.011094	0.000091	0.000385	0.000003	0.281427	0.000021	0.281413	0.000036	-5.0	1.3	2509	2868
12K50-9.1	1929	17	I	0.010313	0.000131	0.000338	0.000004	0.281395	0.000021	0.281382	0.000036	-6.1	1.3	2549	2934
12K50-11.′	1929	17	I	0.018792	0.000014	0.000597	0.000001	0.281453	0.000022	0.281431	0.000037	-4.4	1.3	2487	2828
12K50-12.′	1929	17	I	0.011526	0.000037	0.000390	0.000001	0.281429	0.000021	0.281415	0.000036	-5.0	1.3	2506	2863
12K50-13.′	1929	17	I	0.015458	0.000027	0.000520	0.000001	0.281436	0.000020	0.281417	0.000035	-4.9	1.3	2506	2859

Sample 11K106 (GPS:N41°29'42.2'', E86°43'47.8''): garnet-bearing granodiorite

11K106-03	1934	8	II	0.008526	0.000097	0.000277	0.000004	0.281450	0.000016	0.281440	0.000033	-4.0	1.2	2471	2807
11K106-04	1934	8	I	0.002362	0.000015	0.000076	0.000001	0.281462	0.000017	0.281460	0.000033	-3.3	1.2	2442	2763
11K106-05	1934	8	I	0.014084	0.000110	0.000498	0.000004	0.281490	0.000021	0.281471	0.000036	-2.8	1.3	2432	2738
11K106-08	1934	8	II	0.007024	0.000033	0.000238	0.000002	0.281479	0.000017	0.281470	0.000034	-2.9	1.2	2430	2740
11K106-09	1934	8	II	0.009867	0.000055	0.000332	0.000002	0.281468	0.000018	0.281455	0.000034	-3.4	1.2	2451	2772
11K106-10	1934	8	I	0.011246	0.000136	0.000371	0.000005	0.281463	0.000014	0.281449	0.000032	-3.6	1.1	2460	2786
11K106-11	1934	8	I	0.008231	0.000355	0.000281	0.000012	0.281504	0.000026	0.281493	0.000039	-2.1	1.4	2399	2690
11K106-13	1934	8	I	0.022584	0.000138	0.000770	0.000004	0.281490	0.000015	0.281461	0.000033	-3.2	1.2	2449	2759
11K106-14	1934	8	II	0.010821	0.000165	0.000374	0.000006	0.281456	0.000025	0.281442	0.000038	-3.9	1.4	2470	2801
11K106-15	1934	8	I	0.030264	0.000584	0.001027	0.000021	0.281512	0.000018	0.281474	0.000034	-2.8	1.2	2435	2732

Sample 12K49 (GPS:N41°27'18.8'', E86°49'26.2''): garnet-bearing granodiorite

12K49-07	1934	8	I	0.001011	0.000031	0.000033	0.000001	0.281382	0.000018	0.281381	0.000034	-6.1	1.2	2547	2935
12K49-11	1934	8	II	0.001216	0.000017	0.000034	0.000000	0.281425	0.000019	0.281424	0.000035	-4.5	1.2	2489	2841
12K49-12	1934	8	II	0.000871	0.000008	0.000025	0.000000	0.281353	0.000020	0.281352	0.000035	-7.1	1.3	2585	2997
12K49-13	1934	8	I	0.007260	0.000329	0.000258	0.000013	0.281528	0.000025	0.281518	0.000038	-1.2	1.3	2365	2635
12K49-18	1934	8	I	0.015770	0.001175	0.000545	0.000041	0.281451	0.000019	0.281431	0.000035	-4.3	1.2	2487	2826
12K49-19	1934	8	II	0.007650	0.000095	0.000255	0.000002	0.281402	0.000018	0.281392	0.000034	-5.7	1.2	2535	2910
12K49-21	1934	8	II	0.002406	0.000094	0.000080	0.000004	0.281486	0.000018	0.281483	0.000034	-2.4	1.2	2410	2712
12K49-26	1934	8	I	0.000712	0.000006	0.000019	0.000000	0.281373	0.000018	0.281372	0.000034	-6.4	1.2	2558	2954
12K49-27	1934	8	I	0.000746	0.000010	0.000020	0.000000	0.281383	0.000017	0.281382	0.000034	-6.0	1.2	2545	2932
12K49-28	1934	8	I	0.000742	0.000006	0.000020	0.000000	0.281369	0.000018	0.281368	0.000034	-6.5	1.2	2563	2962

Sample 11K101 (GPS:N41°31'43.7'', E86°35'52.5''): tonalite

11K101-10	1931	5	II	0.008117	0.000185	0.000304	0.000007	0.281539	0.000033	0.281528	0.000044	-0.9	1.5	2353	2616
11K101-11	1931	5	II	0.005343	0.000046	0.000189	0.000000	0.281634	0.000017	0.281627	0.000034	2.6	1.2	2219	2400
11K101-12	1931	5	I	0.004793	0.000042	0.000174	0.000002	0.281581	0.000015	0.281574	0.000033	0.7	1.2	2289	2515
11K101-13	1931	5	II	0.007806	0.000052	0.000273	0.000002	0.281676	0.000031	0.281666	0.000042	4.0	1.5	2167	2315
11K101-15	1931	5	II	0.006147	0.000023	0.000220	0.000001	0.281681	0.000019	0.281673	0.000034	4.3	1.2	2157	2299
11K101-16	1931	5	I	0.008791	0.000058	0.000297	0.000001	0.281613	0.000015	0.281602	0.000033	1.7	1.2	2254	2455
11K101-17	1931	5	I	0.008371	0.000094	0.000301	0.000003	0.281633	0.000015	0.281622	0.000033	2.4	1.2	2226	2411
11K101-18	1931	5	I	0.018724	0.000580	0.000672	0.000018	0.281634	0.000016	0.281610	0.000033	2.0	1.2	2246	2438
11K101-20	1931	5	II	0.005239	0.000013	0.000190	0.000001	0.281627	0.000017	0.281620	0.000033	2.4	1.2	2228	2415
11K101-22	1931	5	II	0.005511	0.000026	0.000208	0.000001	0.281586	0.000020	0.281578	0.000035	0.9	1.2	2284	2506

(on LA-ICPMS mount)															
12k92-01	1943	11	I	0.004224	0.000213	0.000146	0.000007	0.281552	0.000013	0.281546	0.000032	0.0	1.1	2327	2569
12k92-02	1943	11	II	0.006174	0.000218	0.000232	0.000009	0.281674	0.000028	0.281665	0.000040	4.2	1.4	2168	2309
12k92-04	1943	11	I	0.008496	0.000275	0.000319	0.000009	0.281585	0.000014	0.281574	0.000032	1.0	1.1	2292	2509
12k92-06	1943	11	II	0.005508	0.000033	0.000185	0.000000	0.281550	0.000012	0.281543	0.000031	-0.1	1.1	2331	2575
12k92-07	1943	11	I	0.005708	0.000047	0.000208	0.000002	0.281603	0.000032	0.281595	0.000043	1.8	1.5	2262	2462
12k92-08	1943	11	I	0.013517	0.000554	0.000476	0.000018	0.281593	0.000014	0.281575	0.000032	1.1	1.1	2291	2506
12k92-09	1943	11	II	0.005872	0.000105	0.000236	0.000004	0.281594	0.000014	0.281586	0.000032	1.4	1.1	2275	2483
12k92-10	1943	11	I	0.007821	0.000067	0.000308	0.000002	0.281617	0.000016	0.281606	0.000033	2.1	1.2	2248	2439
12k92-11	1943	11	II	0.010390	0.000428	0.000382	0.000016	0.281570	0.000017	0.281556	0.000034	0.4	1.2	2316	2548
12k92-12	1943	11	I	0.020198	0.000410	0.000678	0.000013	0.281571	0.000013	0.281546	0.000032	0.0	1.1	2332	2569
(on SHRIMP mount)															
12K92-1.1	1943	11	I	0.021951	0.000120	0.000768	0.000004	0.281619	0.000019	0.281591	0.000035	1.6	1.2	2272	2471
12K92-2.1	1943	11	II	0.004813	0.000180	0.000174	0.000006	0.281584	0.000027	0.281578	0.000040	1.2	1.4	2284	2500
12K92-3.1	1943	11	I	0.033555	0.001199	0.001281	0.000044	0.281635	0.000021	0.281588	0.000036	1.5	1.3	2281	2477
12K92-4.1	1943	11	I	0.011914	0.000025	0.000466	0.000001	0.281567	0.000017	0.281550	0.000034	0.2	1.2	2325	2561
12K92-5.1	1943	11	II	0.009832	0.000033	0.000338	0.000002	0.281575	0.000020	0.281563	0.000035	0.6	1.2	2306	2533
12K92-6.1	1943	11	I	0.025863	0.000142	0.001025	0.000006	0.281618	0.000023	0.281580	0.000037	1.2	1.3	2289	2495
12K92-7.1	1943	11	II	0.016907	0.000250	0.000597	0.000009	0.281505	0.000019	0.281483	0.000035	-2.2	1.2	2417	2707
12K92-8.1	1943	11	I	0.040826	0.001012	0.001516	0.000030	0.281572	0.000020	0.281516	0.000035	-1.0	1.2	2383	2635
12K92-9.1	1943	11	I	0.030232	0.000425	0.001158	0.000013	0.281536	0.000022	0.281493	0.000036	-1.9	1.3	2410	2684
12K92-10.′	1943	11	I	0.014240	0.000900	0.000521	0.000031	0.281592	0.000017	0.281573	0.000034	1.0	1.2	2294	2510
12K92-11.′	1943	11	I	0.003499	0.000111	0.000130	0.000004	0.281544	0.000017	0.281539	0.000034	-0.2	1.2	2336	2585
12K92-12.′	1943	11	I	0.037602	0.000667	0.001407	0.000022	0.281642	0.000023	0.281590	0.000037	1.6	1.3	2280	2474
12K92-13.′	1943	11	I	0.016991	0.001215	0.000665	0.000049	0.281687	0.000023	0.281663	0.000037	4.2	1.3	2174	2314
12K92-15.′	1943	11	I	0.034622	0.000261	0.001336	0.000008	0.281628	0.000022	0.281578	0.000037	1.2	1.3	2294	2499

Note:

a: overall weighted mean or upper intercept ages with 2σ errors for magmatic and metamorphic zircon doma

b: zircon domain: I - magmatic (with blurred oscillatory zoning); II - metamorphic (homogeneous or with patchy zoning).

c: errors for the measured isotopic ratios are 2s.e. (standard error), or within-run (internal) precision.

d: the decay constant $\lambda^{176}Lu = 1.867 \times 10^{-11}$ (Söderlund et al., 2004) and the chondrite parameters of $^{176}Hf/^{177}Hf = 0.282772$ and $^{176}Lu/^{177}Hf = 0.0332$ (Blichert-Toft and Albarède, 1997) were used.

e: uncertainties for the initial $^{176}Hf/^{177}Hf_{(t)}$ and $\varepsilon Hf_{(t)}$ are quadratic additions of the within-run precision and the daily reproducibility of the standard zircon Mud Tank (2σ = 0.010%, n = 144).

f: Hf model ages were calculated using the depleted mantle model witl $^{176}Hf/^{177}Hf = 0.28325$ and $^{176}Lu/^{177}Hf = 0.0384$ (Griffin et al., 2000), and $^{176}Lu/^{177}Hf = 0.015$ for average continental crust (Griffin et al., 2002

Table DR4 Major and trace element data for the late Paleoproterozoic granitoids in the western Kuruktag Block, northern Tarim Craton, NW China

Rock type	monzogranite								quartz diorite/quartz monzonite				garnet-bearing granodiorite									tonalite		trondhjemite					
Sample no.	**11K86**	**11K88**	**12K34**	**xj-371** [e]	**xj-372** [e]	**xj-374** [e]	**xj-375** [e]	**xj-377** [e]	**12K50**	**XJ482** [e]	**XJ483** [e]	**xj-373** [e]	**11K106**	**12K39**	**12K41**	**12K42**	**12K43**	**12K44**	**12K46**	**12K48**	**12K49**	**12K47**	**11K101**	**11K100**	**12K92-1**	**12K92-2**	**12K92-3**	**12K92-4**	**12K92-5**
major elements																													
SiO_2	63.43	61.54	62.15	60.6	64.95	63.52	64.83	64.94	55.98	57.27	55.02	53.54	59.51	58.31	69.58	58.86	62.92	64.11	64.96	62.00	70.26	60.11	61.00	70.79	68.63	68.58	67.82	66.59	69.98
TiO_2	1.20	1.59	1.39	1.32	0.75	0.96	1.04	0.98	1.24	1.69	1.90	1.99	0.75	0.86	0.38	0.87	1.26	1.32	0.28	1.56	0.42	0.98	0.64	0.17	0.16	0.24	0.19	0.41	0.18
Al_2O_3	15.91	15.93	16.04	15.63	14.42	14.91	14.96	14.80	17.07	17.73	18.38	17.67	17.43	17.26	13.61	16.80	16.22	15.66	17.05	14.89	14.06	16.73	17.70	15.86	16.87	16.47	16.19	13.88	14.65
Fe_2O_3 [T]	5.05	6.13	5.12	6.65	5.15	6.03	4.75	4.73	8.24	6.46	7.09	7.64	6.48	7.58	3.33	7.49	4.92	4.38	3.08	6.04	3.12	6.88	5.35	1.74	1.20	1.68	1.55	4.62	1.18
MnO	0.07	0.08	0.06	0.09	0.08	0.05	0.06	0.07	0.11	0.07	0.10	0.13	0.09	0.11	0.04	0.10	0.06	0.05	0.07	0.08	0.04	0.10	0.07	0.03	0.02	0.02	0.02	0.07	0.02
MgO	1.71	2.12	1.81	2.22	1.53	1.50	1.31	1.43	3.39	2.19	2.49	3.00	2.57	3.43	1.40	3.65	2.14	1.54	1.08	1.78	1.60	3.06	2.05	0.58	0.46	0.48	0.70	2.02	0.46
CaO	2.15	3.22	1.65	3.48	3.05	2.60	2.19	2.33	5.37	3.37	3.69	4.31	3.10	4.14	1.68	2.54	2.80	2.44	4.27	2.89	2.73	4.13	4.42	2.27	1.78	3.45	2.42	4.93	2.86
Na_2O	2.32	2.55	3.50	2.30	2.16	2.04	2.39	3.11	3.74	3.05	2.98	3.39	4.25	3.25	3.64	3.81	2.69	2.68	3.60	2.44	2.46	4.05	3.99	5.82	7.86	6.73	6.53	5.43	6.44
K_2O	5.66	4.43	5.49	5.20	5.24	5.39	6.14	4.85	1.57	5.27	4.79	4.84	2.32	1.65	3.62	2.38	4.55	5.26	3.47	4.86	2.35	0.88	1.97	1.24	2.24	1.11	2.40	0.91	2.48
P_2O_5	0.37	0.30	0.45	0.46	0.19	0.35	0.32	0.30	0.51	0.57	0.61	0.37	0.14	0.08	0.07	0.26	0.08	0.07	0.11	0.51	0.05	0.04	0.15	0.05	0.05	0.05	0.04	0.05	0.04
LOI	2.17	2.13	2.03	2.00	2.33	2.77	1.76	2.12	2.90	2.15	2.75	2.83	3.09	2.99	2.28	3.02	1.95	2.06	1.63	2.45	2.87	2.73	2.81	1.40	0.91	1.24	2.18	0.79	1.70
SUM	100.04	100.03	99.69	99.95	99.84	100.11	99.74	99.66	100.15	100.10	100.15	99.70	99.74	99.66	99.63	99.77	99.60	99.57	99.61	99.51	99.97	99.69	100.15	99.95	100.17	100.06	100.03	99.69	100.00
A/CNK [a]	1.15	1.07	1.09	0.99	0.98	1.07	1.03	1.01	0.97	1.05	1.09	0.95	1.15	1.18	1.05	1.25	1.12	1.08	0.98	1.02	1.21	1.11	1.06	1.05	0.91	0.89	0.91	0.73	0.79
Na_2O/K_2O	0.41	0.58	0.64	0.44	0.41	0.38	0.39	0.64	2.38	0.58	0.62	0.70	1.83	1.97	1.01	1.60	0.59	0.51	1.04	0.50	1.05	4.58	2.03	4.68	3.50	6.05	2.72	5.98	2.59
Mg#	44.0	44.6	45.1	43.8	40.9	36.7	39.1	41.3	49.0	44.1	45.0	47.8	48.0	51.3	49.6	53.1	50.4	45.0	44.9	40.8	54.3	50.9	47.2	43.7	47.3	40.1	51.4	50.5	47.8
trace elements																													
Li	27.9	19.0	18.4						18.5				24.3	45.2	19.1	45.7	13.3	10.5	7.59	11.8	11.9	15.7	12.5	0.00	1.65	4.95	8.07	2.64	3.46
Be	1.25	0.64	0.79						1.72				0.45	0.42	0.61	0.66	0.59	0.18	1.14	1.10	2.62	0.63	0.84	0.60	0.79	0.68	0.83	0.53	0.65
Sc	9.86	9.88	8.39						11.6				14.5	16.2	9.40	17.4	8.88	5.44	5.24	11.7	6.83	16.2	13.8	0.72	1.59	1.82	2.28	10.0	1.78
Ti	9186	11621	10946						7469				5499	5214	2945	6700	10260	8178	2021	13294	2369	5797	4812	1028	808	1314	997	2288	1005
V	55.0	72.3	49.5	55.7	37.2	33.8	33.2	35.3	69.7	72.0	77.0	89.8	85.7	78.0	36.0	101	70.1	40.1	35.5	54.0	34.8	69.4	76.9	20.9	8.08	14.3	12.9	68.0	10.2
Cr	24.5	29.8	25.5	34.3	18.0	22.8	23.0	25.0	51.2	40.0	20.0	42.7	46.4	84.9	29.0	77.5	34.8	32.5	12.8	16.1	41.9	82.5	42.7	7.73	2.45	12.5	6.59	30.6	11.9
Mn	571	633	454						1456				690	1525	318	808	477	733	523	681	602	1278	549	185	210	288	263	878	157
Co	9.64	10.9	8.29						20.3				12.5	28.0	5.54	18.7	10.7	11.0	3.31	9.49	7.19	24.6	11.9	3.36	2.27	7.58	6.22	18.8	2.54
Ni	8.60	11.3	8.01						14.4				22.1	44.9	10.5	34.8	16.4	12.4	5.66	5.49	15.1	36.0	19.6	5.35	1.78	9.25	9.29	14.1	3.60
Cu	6.94	4.65	5.69						7.16				17.2	31.0	9.91	22.1	10.1	12.2	2.43	9.84	9.64	29.3	9.01	6.17	3.70	24.1	14.0	16.9	5.44
Zn	101	106							105				87.6	101				91.2			47.5	95.4	69.0	35.8	39.0	27.6	23.2	43.2	21.2
Ga	27.7	25.8	26.9	25.6	24.9	29.1	25.1	24.7	23.6	27.6	23.3	23.7	24.4	22.4	17.7	27.4	27.1	20.1	25.1	26.3	17.1	19.9	26.2	16.6	14.9	15.8	14.7	13.9	13.3
Rb	242	115	210	117	141	216	221	132	30.1	168	142	101	57.9	40.1	77.3	45.7	118	125	97.0	101	60.2	14.3	49.0	22.1	53.7	31.7	59.4	17.5	56.9
Sr	390	570	367	585	528	242	334	297	649	697	662	781	452	550	347	640	654	362	985	594	459	636	777	896	547	788	658	546	437
Y	24.5	13.3	32.8	11.6	14.4	34.5	16.6	29.2	19.7	17.6	20.3	10.3	10.0	31.6	14.8	23.9	13.3	14.2	13.9	20.4	16.5	7.71	12.9	1.26	0.59	3.09	0.72	6.44	0.67
Zr	497	476	467	322	444	540	495	437	105	426	96.0	225	280	173	285	219	49.1	169	118	435	83.8	271	289	56.2	72.2	127	68.7	20.7	96.0
Nb	21.1	19.1	29.2	17.6	20.7	28.4	15.6	23.8	22.2	21.5	27.7	20.9	6.89	8.77	7.46	9.91	15.3	16.6	8.58	29.5	2.45	12.6	7.67	0.83	1.16	3.15	0.75	1.53	1.04
Mo	0.42	0.28	0.90						0.15				0.41	1.30	0.60	1.64	0.96	0.71	0.85	0.66	0.41	1.47	0.96	0.60	0.16	1.55	0.53	0.66	0.50
Cd	0.25	0.15											0.06										0.06						
Sn	0.92	0.44	0.43						0.20				0.19	0.11	0.66	0.26	0.90	0.16	1.57	0.23	0.32	0.11	0.85	0.12	0.05	0.28	0.15	0.22	0.12
Cs	0.80	0.00	0.97	0.57	0.29	0.34	0.22	0.33	0.15	0.21	0.51	0.20	0.00	0.40	0.72	0.49	0.35	0.07	0.43	0.34	0.01	0.04	0.00	0.00	0.23	0.23	0.15	0.23	0.27
Ba	1417	1353	1372	1638	1386	821	1099	923	1023	2120	2500	3169	1357	1305	2067	1991	2266	1546	2106	2553	881	701	1173	785	1380	1218	2688	659	1671
La	122	97.8	120	109	89.8	144	125	99.3	84.1	135	112	55.4	54.9	65.8	66.2	63.3	74.6	55.6	23.3	97.8	50.8	62.5	74.9	8.43	16.6	23.3	10.2	8.24	20.0
Ce	243	166	282	212	165	301	249	196	159	271	222	98.6	102	108	130	104	111	66.5	42.3	181	93.1	104	120	9.66	23.5	34.5	14.9	14.2	25.6
Pr	27.1	17.7	28.7	25.5	18.2	36.0	29.5	23.3	18.8	33.0	27.7	12.6	10.5	11.2	13.4	12.0	9.31	5.69	4.08	18.9	10.3	10.8	13.3	0.95	1.82	3.81	1.21	1.36	1.84
Nd	104	70.7	110	97.7	64.9	138	111	86.6	76.2	126	107	48.3	36.9	39.3	43.9	46.4	31.7	17.6	17.3	76.0	36.3	38.1	49.7	3.41	5.71	12.3	3.97	5.37	5.69
Sm	13.5	9.03	16.6	12.8	8.86	19.4	15.0	12.6	11.7	18.0	15.7	6.84	4.85	5.18	5.57	7.30	3.86	2.67	3.08	12.2	4.32	4.37	6.67	0.45	0.58	1.28	0.47	1.04	0.53
Eu	5.35	2.68	2.16	2.76	2.20	1.51	1.67	1.68	2.42	3.19	4.03	3.65	1.62	2.20	1.49	2.21	3.93	2.54	1.15	2.97	1.56	2.08	8.15	0.59	0.70	0.88	1.25	0.78	1.00
Gd	8.95	5.89	9.38	7.68	5.89	12.8	9.20	8.67	9.29	8.41	8.97	4.82	3.81	5.74	3.54	5.84	2.90	3.58	2.52	8.38	4.18	3.98	5.38	0.39	0.65	1.39	0.60	1.16	0.81
Tb	0.96	0.56	1.27	0.65	0.55	1.33	0.78	0.97	0.99	0.90	0.98	0.46	0.47	0.78	0.51	0.85	0.47	0.53	0.38	1.08	0.50	0.36	0.59	0.04	0.05	0.13	0.05	0.17	0.05
Dy	4.40	2.81	6.68	3.09	2.95	7.61	4.06	6.07	3.76	4.07	4.36	2.43	1.98	4.50	2.58	4.69	2.72	2.75	2.34	4.83	2.48	1.29	2.86	0.16	0.17	0.55	0.21	1.07	0.19
Ho	0.81	0.45	1.21	0.49	0.56	1.42	0.72	1.22	0.61	0.62	0.75	0.44	0.38	0.99	0.54	0.94	0.58	0.46	0.53	0.83	0.49	0.26	0.45	0.03	0.03	0.10	0.04	0.21	0.04
Er	2.45	1.29	3.59	1.26	1.63	3.72	1.89	3.39	1.82	1.35	1.73	1.16	0.96	3.20	1.81	2.72	1.73	1.23	1.64	2.37	1.63	1.00	1.22	0.09	0.12	0.31	0.12	0.63	0.13
Tm	0.34	0.16	0.45	0.15	0.24	0.48	0.24	0.46	0.19	0.16	0.23	0.15	0.18	0.47	0.27	0.35	0.25	0.16	0.25	0.29	0.23	0.15	0.15	0.01	0.01	0.04	0.02	0.09	0.02
Yb	2.14	0.99	2.60	0.84	1.56	2.79	1.43	2.75	1.24	0.94	1.38	0.86	1.04	3.12	1.73	2.00	1.42	0.95	1.56	1.68	1.61	1.14	1.01	0.10	0.09	0.28	0.11	0.56	0.10
Lu	0.32	0.15	0.34	0.14	0.26	0.39	0.21	0.40	0.19	0.13	0.21	0.13	0.14	0.49	0.27	0.29	0.21	0.14	0.24	0.26	0.25	0.20	0.16	0.01	0.02	0.04	0.02	0.09	0.02
Hf	9.97	8.82	14.8	8.30	11.3	14.4	13.1	11.8	2.99	10.4	2.90	5.80	5.18	4.93	9.19	6.33	1.92	5.00	3.81	12.9	2.44	7.43	5.41	1.14	2.06	3.21	1.56	0.62	2.67
Ta	1.10	0.96	1.59	1.08	1.09	1.04	0.81	1.47	1.00	1.10	1.50	1.17	0.21	0.30	0.39	0.40	0.93	0.78	0.64	1.54	0.13	0.58	0.30	0.02	0.04	0.11	0.03	0.07	0.03
W	0.90	0.34	0.44	1.30	0.66	0.54	0.29	0.94	0.48	1.00	3.00	0.69	0.38	0.42	0.35	0.49	0.45	0.23	0.30	0.39	0.51	0.33	0.27	0.14	0.17	0.30	0.19	0.26	0.14
Pb	36.9	30.9	19.5						14.6				21.8	24.0	17.7	16.9	34.7	32.9	6.32	41.4	8.89	17.5	11.0	6.80	10.5	10.3	7.46	6.14	6.71
Bi	0.03	0.03	0.02						0.01				0.02	0.01	0.03	0.04	0.02	0.01	0.03	0.02	0.06	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.00
Th	25.1	3.64	11.0	4.08	18.5	16.8	14.0	9.31	1.05	3.09	5.22	1.64	0.27	0.92	43.2	1.40	0.65	0.06	3.59	0.85	2.22	6.32	2.72	0.00	0.12	12.5	0.10	0.68	0.23
U	1.87	0.58	1.30	0.65	2.11	2.26	0.83	1.36	0.35	0.40	0.81	0.26	0.25	0.33	1.65	0.41	0.44	0.13	1.10	0.62	0.56	0.29	0.46	0.12	0.17	0.97	0.22	0.22	0.09
Sr/Y	16	43	11.2	50.4	36.7	7.0	20.1	10.2	32.9	39.6	32.6	75.8	45.0	17.4	23.5	26.8	49.3	25.4	71.1	29.1	27.8	82.5	60.3	709	926	255	913	84.7	652
$(La/Yb)_N$ [b]	40.8	71.0	33.1	93.3	41.3	37.0	62.9	25.9	48.7	103	58.2	46.2	38.0	15.1	27.5	22.7	37.7	42.0	10.8	41.7	22.6	39.3	53.0	62.8	132	59.6	66.5	10.6	143
$(Gd/Yb)_N$ [b]	3.46	4.93	2.98	7.56	3.12	3.79	5.32	2.61	6.20	7.40	5.38	4.64	3.04	1.52	1.69	2.42	1.69	3.12	1.34	4.11	2.15	2.89	4.39	3.38	5.97	4.11	4.51	1.71	6.70
Eu* [c]	1.49	1.12	0.53	0.85	0.93	0.29	0.43	0.49	0.71	0.79	1.04	1.94	1.15	1.23	1.03	1.03	3.59	2.51	1.26	0.90	1.12	1.52	4.16	4.30	3.49	2.02	7.20	2.17	4.67
T_{Zr} (°C) [d]	893	875	876	825	864	894	880	866	716	851	722	768	828	785	837	813	688	783	742	863	746	821	822	700	698	740	696	593	708

Note:
a: A/CNK = Al2O3/(CaO+Na2O+K2O); all in mole percent;
b: normarlized to chondrite values after Sun and McDonough (1989)
c: Eu* = Eu/SQRT(Sm*Gd), normarlized to chondrite values after Sun and Mcdonough (1989)
d: zircon saturation temperature after Watson and Harrison (1983)
e: data from Lei et al., 2012