

**Table S1. U-Pb isotopic dating result for zircons from the the Nianzigou granite**

No.	Concentrations		<sup>232</sup> Th/ <sup>238</sup> U	<sup>207</sup> Pb/ <sup>206</sup> Pb	1σ	<sup>207</sup> Pb/ <sup>235</sup> U	1σ	<sup>206</sup> Pb/ <sup>238</sup> U	1σ	Age (Ma)					
	(ppm)									<sup>207</sup> Pb/ <sup>206</sup> Pb	1σ	<sup>207</sup> Pb/ <sup>235</sup> U	1σ	<sup>206</sup> Pb/ <sup>238</sup> U	1σ
	Th	U													
N02-04 granite porphyry															
N02-04-01	305	387	0.7878	0.0490	0.0020	0.1636	0.0065	0.0244	0.0003	146	93.5	154	5.6	155	1.6
N02-04-02	270	127	2.1344	0.0513	0.0034	0.1671	0.0098	0.0240	0.0004	254	149.1	157	8.5	153	2.3
N02-04-03	114	128	0.8895	0.0512	0.0032	0.1628	0.0084	0.0237	0.0003	256	144.4	153	7.4	151	2.2
N02-04-04	174	243	0.7184	0.0494	0.0027	0.1653	0.0084	0.0243	0.0003	165	125.9	155	7.3	155	1.8
N02-04-05	410	593	0.6921	0.0502	0.0017	0.1666	0.0053	0.0241	0.0002	206	79.6	156	4.6	154	1.2
N02-04-06	149	143	1.0450	0.0491	0.0033	0.1659	0.0093	0.0245	0.0003	150	151.8	156	8.1	156	2.1
N02-04-07	626	691	0.9053	0.0492	0.0014	0.1657	0.0048	0.0244	0.0002	167	73.1	156	4.2	156	1.1
N02-04-08	141	190	0.7413	0.0504	0.0033	0.1691	0.0106	0.0246	0.0003	213	156.5	159	9.2	157	1.8
N02-04-09	168	161	1.0442	0.0489	0.0029	0.1650	0.0085	0.0245	0.0003	143	133.3	155	7.4	156	1.9
N02-04-10	443	484	0.9160	0.0500	0.0024	0.1665	0.0058	0.0241	0.0002	198	112.9	156	5.1	153	1.4
N02-04-11	291	353	0.8228	0.0504	0.0027	0.1770	0.0076	0.0255	0.0002	217	128.7	165	6.5	163	1.6
N02-04-12	220	240	0.9143	0.0495	0.0023	0.1640	0.0077	0.0240	0.0003	169	109.2	154	6.7	153	1.6
N02-04-13	411	414	0.9919	0.0480	0.0019	0.1614	0.0053	0.0243	0.0002	98.2	104.6	152	4.6	155	1.3
N02-04-14	104	104	0.9964	0.0499	0.0036	0.1615	0.0109	0.0236	0.0004	191	170.3	152	9.5	150	2.4
N02-04-15	338	342	0.9890	0.0494	0.0022	0.1640	0.0062	0.0240	0.0002	165	101.8	154	5.4	153	1.4
N02-04-16	375	453	0.8263	0.0496	0.0023	0.1654	0.0065	0.0241	0.0002	176	107.4	155	5.7	154	1.4
N02-04-17	324	418	0.7758	0.0489	0.0018	0.1607	0.0058	0.0239	0.0002	143	87.0	151	5.1	152	1.4
N02-04-18	527	544	0.9694	0.0494	0.0018	0.1624	0.0060	0.0239	0.0002	165	87.0	153	5.2	152	1.4
N02-04-19	472	388	1.2166	0.0493	0.0020	0.1626	0.0065	0.0240	0.0002	161	94.4	153	5.7	153	1.4
N02-04-20	164	178	0.9208	0.0502	0.0032	0.1694	0.0090	0.0251	0.0004	206	147.2	159	7.9	160	2.4

continued

No.	Concentrations		<sup>232</sup> Th/ <sup>238</sup> U	<sup>207</sup> Pb/ <sup>206</sup> Pb	1σ	<sup>207</sup> Pb/ <sup>235</sup> U	1σ	<sup>206</sup> Pb/ <sup>238</sup> U	1σ	Age (Ma)					
	(ppm)									<sup>207</sup> Pb/ <sup>206</sup> Pb	1σ	<sup>207</sup> Pb/ <sup>235</sup> U	1σ	<sup>206</sup> Pb/ <sup>238</sup> U	1σ
	Th	U													
N3-01 monzogranite															
N3-01-01	626	1380	0.4533	0.0482	0.0014	0.1660	0.0045	0.0249	0.0002	109	66.7	156	3.9	159	1.2
N3-01-02	1179	916	1.2860	0.0500	0.0017	0.1700	0.0044	0.0247	0.0002	198	77.8	159	3.8	157	1.3
N3-01-03	293	450	0.6507	0.0494	0.0021	0.1694	0.0069	0.0250	0.0003	165	100.0	159	6.0	159	1.7
N3-01-04	689	1104	0.6240	0.0501	0.0015	0.1704	0.0042	0.0246	0.0002	198	68.5	160	3.7	157	1.2
N3-01-05	431	643	0.6713	0.0485	0.0022	0.1680	0.0055	0.0251	0.0002	124	107.4	158	4.8	160	1.5
N3-01-06	1033	1010	1.0234	0.0498	0.0017	0.1694	0.0046	0.0247	0.0002	187	79.6	159	4.0	157	1.1
N3-01-07	1506	1453	1.0365	0.0395	0.0034	0.1265	0.0108	0.0232	0.0002	-	-	121	9.7	148	1.1
N3-01-08	531	605	0.8781	0.0503	0.0020	0.1673	0.0057	0.0242	0.0002	209	88.0	157	5.0	154	1.4
N3-01-09	1581	1275	1.2403	0.0483	0.0012	0.1633	0.0040	0.0245	0.0002	122	59.3	154	3.5	156	1.1
N3-01-10	923	1305	0.7068	0.0501	0.0011	0.1703	0.0035	0.0247	0.0002	198	54.6	160	3.1	157	1.0
N3-01-11	610	940	0.6491	0.0500	0.0012	0.1705	0.0041	0.0247	0.0002	195	26.8	160	3.6	157	1.1
N3-01-12	964	1229	0.7839	0.0507	0.0022	0.1711	0.0041	0.0245	0.0002	233	100.0	160	3.6	156	1.2
N3-01-13	721	742	0.9713	0.0500	0.0013	0.1711	0.0046	0.0247	0.0002	198	28.7	160	4.0	158	1.3
N3-01-14	2018	1273	1.5855	0.0599	0.0076	0.1688	0.0209	0.0184	0.0003	611	277.7	158	18.2	117	2.1
N3-01-15	339	461	0.7355	0.0503	0.0031	0.1772	0.0090	0.0256	0.0003	209	144.4	166	7.7	163	2.0
N3-01-16	557	1039	0.5357	0.0499	0.0012	0.1723	0.0042	0.0250	0.0002	191	62.0	161	3.6	159	1.1
N3-01-17	1494	1387	1.0768	0.0501	0.0015	0.1683	0.0039	0.0243	0.0002	198	102.8	158	3.4	155	1.1
N3-01-18	801	1030	0.7778	0.0503	0.0014	0.1702	0.0046	0.0245	0.0002	209	64.8	160	4.0	156	1.1
N3-01-19	744	1037	0.7177	0.0496	0.0014	0.1682	0.0047	0.0246	0.0002	172	66.7	158	4.1	157	1.2
N3-01-20	705	640	1.1004	0.0482	0.0019	0.1673	0.0055	0.0251	0.0002	106	92.6	157	4.8	160	1.4