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DATA REPOSITORY TABLES

Table DR1. Whole-rock geochemical data for representative samples from the Western Hill of Beijing, North China Craton.

Table DR2. LA-ICP-MS LU-HF isotope data on zircons from representative samples from the Western Hills of Beijing, Eastern Block, North China Craton.

Table DR3. Complied geochronological age data of Mesozoic igneous rocks from the North China Craton and adjacent areas.

3.1 Petrography and Mineral Chemistry

Polished thin sections were prepared for petrographic study at the Geological department of Peking University. Representative samples were chosen for detailed petrological observations (Table 1).

3.2 Bulk Chemistry

The least altered and homogeneous portions of rock samples were crushed and powdered to 200 mesh for geochemical analyses after detailed petrographic observation. Major and trace (including rare earth elements) elements analyses were conducted in the National Research Center for Geoanalysis, Beijing. The major elements were determined by X-ray fluorescence (XRF), with analytical uncertainties ranging from 1 to 3%. Loss on ignition (LOI) was obtained using ~1 g of sample powder heated at 980 °C for 30 min. The trace elements were determined as solute by Agilent 7500ce inductively coupled plasma mass spectrometry (ICP-MS). About 50 mg of powder was dissolved for ~7 days at ~100 °C using HF-HNO₃ (10:1) mixtures in screw-top Teflon beakers, followed by evaporation to dryness. The material was dissolved in 7N HNO₃ and taken to incipient dryness again, and then was re-dissolved in 2% HNO₃ to a sample/solution weight ratio of 1:1000. The analytical errors vary from 5 to 10% depending on the concentration of any given element. An internal standard was used for monitoring drift during analysis. Whole rock geochemical data, including major, minor, trace and rare earth elements on twelve samples are given in Table DR1.

3.3 Zircon U-Pb LA-ICP-MS Geochronology

Zircon grains were separated using standard procedures for U-Pb dating and Hf analyses at the Yu'neng Geological and Mineral Separation Survey Centre, Langfang City, Hebei Province, China. The CL imaging was carried out at the Beijing Geoanalysis Centre. Individual grains were mounted along with the standard TEMORA 1, with ²⁰⁶Pb/²³⁸U age of 417 Ma (Black et al., 2004), onto double-sided adhesive tape and enclosed in epoxy resin disks. The disks were

polished to a certain depth and gold coated for cathodoluminescence (CL) imaging and U-Pb isotope analysis. Zircon morphology, inner structure and texture were examined by using a JSM-6510 Scanning Electron Microscope (SEM) equipped with a backscatter probe and a Chroma CL probe. The zircon grains were also examined under transmitted and reflected light images using a petrological microscope.

U-Pb dating and trace element analyses of zircon were conducted synchronously by LA-ICP-MS at Tianjin Institute of Geology and Mineral Resources, China. Detailed operating conditions for the laser ablation system, the ICP-MS instrument, and the data reduction process are described by Liu et al. (2008, 2010). Laser sampling was performed using a GeoLas 2005. An Agilent 7500a ICP-MS instrument was used to acquire ion-signal intensities. Each analysis incorporated a background acquisition of ~20–30 s (gas blank) followed by 50 s data acquisition from the sample. The Agilent Chemstation was utilized for the acquisition of each individual analysis. Off-line selection and integration of background and analytic signals, time-drift correction, and quantitative calibration for trace element analyses and U-Pb dating were performed by ICPMSDataCal (Liu et al., 2008, 2010).

Zircon 91500 was used as external standard for U-Pb dating, and was analyzed twice in between every 5 analyses. Time-dependent drifts of U-Th-Pb isotopic ratios were corrected using a linear interpolation (with time) for every five analyses according to the variations of 91500 (i.e., 2 zircon 91500 + 5 samples + 2 zircon91500) (Liu et al., 2010). Preferred U-Th-Pb isotopic ratios used for 91500 are from Wiedenbeck et al. (1995). Uncertainty of preferred values for the external standard 91500 was propagated to the ultimate results of the samples. Raw data were processed using the ICPMSDataCal program to calculate isotopic ratios and ages of $^{207}\text{Pb}/^{206}\text{Pb}$, $^{206}\text{Pb}/^{238}\text{U}$, and $^{207}\text{Pb}/^{235}\text{U}$. Concordia diagrams and weighted mean calculations were made using ISOPLOT 4.15 software (Ludwig, 2003). The results are presented in Table DR2.

3.4 Lu-Hf Isotopes Analysis

In situ zircon Hf isotopic analyses were conducted on the same spots or in the adjacent domains where U-Pb dating was done. The analytical procedures followed those described by Yuan et al. (2008). The energy density of 15–20 J/cm² and a spot size of 45 µm were used. The flattest, most stable portions of the signal were selected for analysis. Adjustment for the isobaric interference of ^{176}Yb on ^{176}Hf was performed in ‘real time’ as advocated by Woodhead et al. (2004), which involved measuring the interference-free ^{172}Yb and ^{173}Yb during the analysis, calculating mean βYb values from ^{172}Yb and ^{173}Yb and using the $^{176}\text{Yb}/^{172}\text{Yb}$ ratio of 0.5886 (Chu et al., 2002). Zircon 91500 was used as the reference standard with a $^{176}\text{Hf}/^{177}\text{Hf}$ ratio of 0.282306 ± 10 (Woodhead et al., 2004). All the Lu-Hf isotope analysis results were reported with an error of 1σ . The decay constant of ^{176}Lu of $1.865 \times 10^{-11} \text{ year}^{-1}$ was adopted (Scherer et al., 2001; Söderlund et al., 2004). Initial $^{176}\text{Hf}/^{177}\text{Hf}$ ratios Hf(t) were calculated with reference to the chondritic reservoir (CHUR) of (Blichert-Toft and Albarède, 1997) at the time of zircon growth from the magma. Single-stage Hf model age (T_{DM}) was calculated with respect to the depleted mantle with present-day $^{176}\text{Lu}/^{177}\text{Hf} = 0.28325$ and $^{176}\text{Lu}/^{177}\text{Hf} = 0.0384$ (Griffin et al., 2000). Two-stage Hf model age (T_{DM}^{C}) was calculated with respect to the average continental crust with a $^{176}\text{Lu}/^{177}\text{Hf}$ ratio of 0.015 (Griffin et al., 2002). The results are presented in Table 2.

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TABLE DR1. WHOLE-ROCK GEOCHEMICAL DATA FOR REPRESENTATIVE SAMPLES FROM THE WESTERN HILL OF BEIJING, NORTH CHINA CRATON

Series no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Sample no.	BJ-12/2	BJ-4/1	BJ-2/2	BJ-5/2	BJ-6/1	BJ-3/2	BJ-7/1	BJ-7/2	BJ-7/3	BJ-7/4	BJ-1/1	BJ-1/3	BJ-2/1	BJ-2/3	BJ-11/1	BJ-12/1	BJ-5/1	BJ-1/2	BJ-3/1
Rock type	basalt	basaltic	basaltic	basaltic	basaltic	andesite	andesite	andesite	andesite	dacite	dacite	dacite	dacite	dacite	trachydacite	rhyolite	rhyolite		
<i>wt. %</i>																			
SiO ₂	50.93	55.27	53.94	56.26	54.52	59.85	59	60.92	61.78	62.81	70.69	65.95	69.07	66.19	68.78	66.67	64.48	72.8	73.69
TiO ₂	0.66	1.18	0.9	0.89	0.99	0.67	0.54	0.62	0.56	0.55	0.72	0.9	0.57	0.88	0.48	0.64	0.41	0.58	0.48
Al ₂ O ₃	17.57	15.52	15.49	17.17	16.67	18.25	16.8	17.51	17.06	16.24	16.06	17.95	14.71	15.09	12.33	13.11	17.18	14.88	9.99
FeO	3.69	3.52	2.85	1.39	2.95	4.85	0.98	1.76	0.89	0.81	0.55	0.57	1.19	4.36	1.34	1.84	0.76	0.86	1.37
Fe ₂ O ₃	0.98	4.77	1.47	5.05	4.79	0.24	4.35	4.01	4.89	4.81	2.12	3.08	3.7	0.73	2.14	2.02	2.33	1.43	0.16
MnO	0.24	0.12	0.53	0.1	0.12	0.14	0.23	0.14	0.14	0.16	0.04	0.02	0.06	0.08	0.07	0.07	0.04	0.04	0.01
MgO	1.97	4.11	1.74	2.81	4.38	2.54	1.34	1.46	1.27	1.45	0.83	1.29	1.43	1.95	1.74	2.17	0.72	0.8	1.15
CaO	11.98	6.68	8.14	5.94	6.81	4.14	8.62	4	4.09	4.83	0.71	0.65	0.52	1.59	3.76	3.8	3.31	0.68	0.89
Na ₂ O	0.47	3.01	2.62	3.77	3.84	3.95	2.18	3.33	3.28	2.77	1.89	1.67	2.14	2.73	1.8	1.64	6.27	2.59	0.38
K ₂ O	4.24	1.41	3.38	2.69	2.17	1.83	1.79	2.64	2.71	2.27	3.37	3.52	3.1	3.2	2.68	2.99	2.66	2.71	2.75
P ₂ O ₅	0.16	0.27	0.37	0.36	0.34	0.36	0.28	0.32	0.3	0.29	0.17	0.18	0.14	0.21	0.12	0.16	0.19	0.13	0.74
LOI	6.73	3.63	8.19	3.43	2.43	2.79	3.55	3.16	2.76	2.91	2.87	4.01	3.35	2.6	4.42	4.73	1.72	2.33	8.13
Total	99.6	99.5	99.6	99.9	100.0	99.6	99.7	99.9	99.7	99.9	100.0	99.8	100.0	99.6	99.7	99.8	100.1	99.8	99.7
FeO ^T	4.57	7.81	4.17	5.93	7.26	5.07	4.89	5.37	5.29	5.14	2.46	3.34	4.52	5.02	3.27	3.66	2.86	2.15	1.51
Mg#	43	48	43	46	52	47	33	33	30	34	38	41	36	41	49	51	31	40	58
<i>ppm</i>																			
Cr	70.3	67.8	9.94	31.2	65.6	2.69	5.57	9.95	7.34	6.25	63.7	76.8	49	65.9	37.7	61.3	11.8	46.9	41.4
Co	16.6	25.3	16.1	17.7	24.5	7.87	12.7	11.2	11.4	11.5	8.39	7.65	8.84	14.6	9.29	11.6	4	8.05	14.4
Ni	30.5	27.1	9.13	15.5	27.4	4.63	4.42	5.21	4.5	3.83	23.5	29.7	20.2	20.6	18.3	24.2	5.88	19.5	76.8
Li	43.4	52.8	30.5	27.2	13.9	49.2	6.63	8.35	4.44	6.2	13.9	21.2	30	41.1	34.2	42.8	7.33	14.2	23.4
Rb	147	36.1	92.1	50.1	46.1	39.1	56.6	78	71.4	70.2	105	118	99.2	104	79.6	98.5	40.7	83.7	80.7
Sr	306	973	322	795	1140	599	508	867	647	741	140	142	150	441	298	283	591	156	48.1
Cs	7.15	0.95	3.64	3.33	1.5	1.64	2.19	2.72	2.3	2.27	5.53	5.89	5.27	5.69	3.76	4.5	1.58	3.88	3.16
Ba	949	748	1656	1661	1269	1307	924	1459	1372	1385	623	697	829	1007	774	722	1848	524	446
Sc	15.4	17	9.46	12.9	16.7	5.62	8.77	9.74	8.51	8.79	11.8	17.2	10.6	14.6	9.64	11.9	3.54	9.64	12.3
V	101	184	90.9	116	212	70.9	70.5	93.6	77.1	84.6	82.2	111	60.7	90.7	62	72.8	32.3	70.8	422

	0.99	0.54	0.37	0.37	0.35	0.38	0.51	0.53	0.54	0.52	1.07	0.97	0.69	0.95	0.62	0.81	0.52	0.83	0.62
Ta	0.99	0.54	0.37	0.37	0.35	0.38	0.51	0.53	0.54	0.52	1.07	0.97	0.69	0.95	0.62	0.81	0.52	0.83	0.62
Nb	15.1	9.92	8.61	7.7	7.68	8.2	7.03	8.43	8.24	7.49	13.7	14.9	11.1	15.2	10.3	13.1	10.7	11.3	8.75
Zr	176	223	172	163	165	195	127	170	154	143	370	250	207	545	292	302	254	254	128
Hf	4.67	5.45	3.95	4.11	3.88	4.63	3.5	4.36	4.12	3.84	9.48	6.35	5.43	14.7	7.16	7.55	5.99	6.58	3.71
Th	14.9	7.41	3.01	3.2	2.79	3.05	5.75	5.33	5.49	5.86	15.1	14.1	9.51	15.5	10.3	12.3	4.76	11.3	10.1
U	3.9	1.72	1.07	0.77	0.52	0.86	1.09	1.95	1.87	1.97	3.34	3.25	2.27	5.47	1.8	2.28	1.01	2.66	12.5
Y	29.2	18	28.7	16.1	15.9	17.2	22.2	20.7	20	19.4	34.9	34.5	19.1	29.4	21.4	26.4	14.4	24	45.7
La	42.4	42.3	35.5	35.6	38.1	41.1	26.6	35.2	35.9	39.7	40.7	46.1	33	55.5	42.4	37.8	43	36.9	35.7
Ce	78.3	82.5	70.8	70	73.2	80.9	55.9	69.8	66.9	75.7	70.3	78	69.3	105	80.2	72	70.3	67	62.3
Pr	8.89	10.1	9.15	8.75	9.22	9.81	7.34	8.9	8.6	9.1	9.26	11.1	7.73	12.3	9.23	8.56	9.34	8.73	8.85
Nd	31.9	38.4	35.8	34.3	35.1	37.9	29.4	34.8	33.6	34.9	35.5	43.2	28.6	45.5	33.3	32.5	33.2	32	34.5
Sm	5.7	6.73	6.28	5.95	6.06	6.15	5.64	6.36	6.14	6.11	6.88	8.26	5.03	7.97	5.74	5.6	4.9	5.82	6.81
Eu	1.27	1.67	1.35	1.72	1.84	1.76	1.84	1.89	1.77	1.68	1.5	1.67	0.96	1.41	1.24	1.21	1.26	1.22	1.28
Gd	5.57	5.28	6.08	4.8	4.73	4.78	5.07	5.37	5.06	5.25	6.3	7.38	4.08	6.34	4.76	5.26	3.3	4.97	7.16
Tb	0.9	0.75	0.92	0.65	0.67	0.68	0.75	0.75	0.76	0.76	1.08	1.19	0.65	1.02	0.75	0.86	0.53	0.83	1.21
Dy	4.79	3.74	5.11	3.23	3.13	3.3	3.84	3.77	3.58	3.78	6	6.29	3.64	5.35	3.86	4.4	2.49	4.39	7.17
Ho	0.98	0.68	1.04	0.6	0.58	0.64	0.79	0.75	0.73	0.69	1.24	1.25	0.7	1.05	0.73	0.9	0.51	0.87	1.55
Er	3.13	1.94	2.94	1.8	1.64	1.76	2.41	2.28	2.16	2.07	3.85	3.72	2.14	3.32	2.31	2.84	1.57	2.72	4.66
Tm	0.39	0.23	0.37	0.22	0.2	0.22	0.33	0.29	0.29	0.29	0.53	0.49	0.29	0.43	0.29	0.38	0.21	0.38	0.63
Yb	2.66	1.64	2.43	1.44	1.26	1.42	2.28	2.06	2.09	1.85	3.65	3.25	1.97	3.11	2.03	2.53	1.42	2.58	4.37
Lu	0.41	0.23	0.37	0.21	0.19	0.22	0.35	0.3	0.34	0.28	0.53	0.48	0.3	0.47	0.32	0.4	0.23	0.4	0.67
Be	3.74	1.71	2.26	1.52	1.71	1.4	3.63	2.45	2.56	2.58	2.64	2.29	2.43	2.41	2.15	2.47	1.73	2.37	1.52
Mn	2042	918	4177	792	973	1184	1872	1136	1130	1315	313	218	522	665	612	593	361	344	94
Cu	26.7	10.3	21.2	12.2	26.1	21.8	4.85	9.58	4.88	4.41	25.4	22.7	12.9	16.2	11.5	15.9	9.7	11.8	236
Zn	98.9	107	96.7	88.7	101	122	72.5	85.5	78.8	79	74.6	49.2	74.4	80.9	45.9	57	60.5	59.7	90.3
Ga	24	21.2	19.3	20.6	21.8	24.6	19.9	22.3	21.2	20.8	20.3	23.8	19.5	20.8	15.9	17.2	16.1	18.2	14.8
Mo	0.48	0.81	2.49	0.8	0.8	1.62	0.47	0.58	0.56	0.53	2.06	0.68	0.38	0.41	0.26	0.28	1.04	0.63	40.3
Cd	0.59	0.08	0.68	0.05	0.08	0.08	0.24	0.17	0.09	0.09	0.22	<0.05	0.1	0.18	0.06	0.05	0.05	<0.05	2.17
In	0.09	0.07	0.06	0.05	0.05	<0.05	<0.05	0.05	<0.05	0.05	0.06	0.09	0.05	0.06	0.05	0.05	<0.05	0.05	0.16
Tl	0.93	0.18	0.73	0.24	0.12	0.55	0.39	0.53	0.55	0.48	0.62	0.7	0.61	0.56	0.44	0.51	0.24	0.5	1.4
Pb	34.3	11.8	15.1	9.55	9.8	14.1	27.1	11.4	12.6	13.9	29.8	25.1	15.7	22.3	13.4	14.4	9.01	7.01	19.9
Bi	0.13	0.06	0.13	0.05	<0.05	0.06	<0.05	0.06	0.05	0.05	0.62	0.43	0.11	0.18	0.16	0.2	<0.05	0.19	0.81

Sn	3.04	1.5	1.33	1.23	1.28	1.37	1.2	1.46	1.34	1.2	2.99	3.48	2	2.28	1.61	2.51	1.21	2.57	2.8
Sb	0.22	0.2	0.62	0.89	0.11	1.32	0.14	0.08	0.1	0.08	1.38	0.96	0.62	0.51	0.32	0.57	0.09	0.45	7.3
Ti	4256	6628	5402	5268	5956	4380	3448	4073	3610	3526	4496	5534	3535	5545	3196	4211	2711	3724	3054
W	0.94	0.59	0.87	0.35	0.42	0.54	0.51	0.5	0.56	0.48	1.77	2.62	0.75	1.45	1.01	1.33	0.25	1.06	1.56
As	0.2	0.69	7.94	3.36	0.4	1.21	2.62	<0.05	1.44	0.78	18.6	2.09	2.74	1.47	1.1	1.35	2.12	3.5	35

TABLE DR2. LA-ICP-MS LU-HF ISOTOPE DATA ON ZIRCONS FROM REPRESENTATIVE SAMPLES FROM THE WESTERN HILLS OF BEIJING, EASTERN BLOCK,
NORTH CHINA CRATON

Sample	Element				Isotope ratios($\pm 1\sigma$)								Age(Ma $\pm 1\sigma$)				Concordance					
	concentration(ppm)																					
	spots	Pb ^C	²³² T	²³⁸ U	Th/U	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁷ Pb/ ²³⁵ U	²⁰⁶ Pb/ ²³⁸ U	rho	²⁰⁸ Pb/ ²³² Th	²⁰⁷ Pb/ ²⁰⁶ Pb	²⁰⁷ Pb/ ²³⁵ U	²⁰⁶ Pb/ ²³⁸ U	²⁰⁸ Pb/ ²³² Th	(%)							
h																						
BJ2-2-01	3	43	100	0.43	0.0549	0.0053	0.1947	0.0188	0.0257	0.0003	0.13	0.0101	0.0004	409	218	181	17	164	2	201	8	91
BJ2-2-03	7	66	275	0.24	0.0492	0.0025	0.1771	0.0091	0.0261	0.0003	0.20	0.0111	0.0003	155	119	166	8	166	2	223	7	100
BJ2-2-04	65	108	118	0.92	0.1539	0.0021	9.2547	0.1373	0.4361	0.0043	0.66	0.1410	0.0024	2390	23	2364	35	2333	23	2652	46	99
BJ2-2-05	22	35	42	0.82	0.1495	0.0021	8.3296	0.1296	0.4041	0.0040	0.63	0.1485	0.0028	2340	24	2268	35	2188	21	2784	52	97
BJ2-2-06	10	173	359	0.48	0.0507	0.0019	0.1832	0.0072	0.0262	0.0003	0.25	0.0107	0.0003	226	89	171	7	167	2	214	5	98
BJ2-2-07	40	63	102	0.62	0.1144	0.0016	5.3739	0.0835	0.3407	0.0033	0.63	0.1133	0.0026	1871	26	1881	29	1890	19	2157	49	99
BJ2-2-08	38	69	94	0.73	0.1144	0.0016	5.3860	0.0836	0.3416	0.0034	0.63	0.1131	0.0028	1870	26	1883	29	1894	19	2155	54	99
BJ2-2-09	127	168	244	0.69	0.1583	0.0021	9.4529	0.1415	0.4331	0.0043	0.67	0.1417	0.0036	2437	23	2383	36	2320	23	2664	67	98
BJ2-2-10	5	96	170	0.56	0.0515	0.0040	0.1842	0.0144	0.0259	0.0003	0.14	0.0105	0.0003	264	180	172	13	165	2	210	6	96
BJ2-2-11	10	137	333	0.41	0.0559	0.0025	0.2024	0.0104	0.0263	0.0003	0.21	0.0145	0.0007	448	98	187	10	167	2	289	14	89
BJ2-2-12	35	65	71	0.92	0.1564	0.0022	8.4253	0.1300	0.3906	0.0040	0.66	0.1339	0.0028	2417	23	2278	35	2126	22	2526	53	94
BJ2-2-13	4	47	158	0.30	0.0520	0.0038	0.1904	0.0139	0.0265	0.0003	0.15	0.0131	0.0006	287	166	177	13	169	2	261	11	95
BJ2-2-14	5	96	167	0.57	0.0550	0.0028	0.1930	0.0101	0.0254	0.0003	0.20	0.0112	0.0004	414	114	179	9	162	2	224	7	90
BJ2-2-15	5	62	193	0.32	0.0537	0.0028	0.1911	0.0101	0.0258	0.0003	0.21	0.0143	0.0006	359	117	178	9	164	2	286	12	93
BJ2-2-16	63	60	133	0.45	0.1699	0.0023	9.6503	0.1447	0.4119	0.0043	0.69	0.1550	0.0047	2557	23	2402	36	2224	23	2897	87	94
BJ2-2-17	33	32	60	0.54	0.1754	0.0024	11.3087	0.1715	0.4677	0.0046	0.65	0.1477	0.0043	2610	23	2549	39	2473	24	2769	81	98
BJ2-2-18	17	718	493	1.46	0.0528	0.0016	0.1831	0.0057	0.0251	0.0003	0.32	0.0086	0.0002	321	67	171	5	160	2	173	5	94
BJ2-2-19	2	55	81	0.69	0.0538	0.0061	0.1872	0.0204	0.0252	0.0003	0.13	0.0131	0.0005	363	254	174	19	161	2	263	11	92
BJ2-2-21	59	88	99	0.89	0.1694	0.0023	11.1090	0.1654	0.4758	0.0047	0.67	0.1543	0.0034	2551	23	2532	38	2509	25	2885	63	99
BJ2-2-22	9	283	288	0.98	0.0519	0.0024	0.1809	0.0084	0.0253	0.0003	0.22	0.0090	0.0002	280	104	169	8	161	2	180	4	95
BJ2-2-24	14	241	507	0.48	0.0537	0.0015	0.1919	0.0055	0.0259	0.0003	0.34	0.0102	0.0003	358	62	178	5	165	2	203	6	93
BJ2-2-25	3	58	90	0.65	0.0558	0.0063	0.1998	0.0233	0.0260	0.0005	0.15	0.0150	0.0007	444	252	185	22	165	3	299	15	89
BJ5-2-01	5	189	163	1.16	0.0509	0.0044	0.1664	0.0144	0.0237	0.0003	0.13	0.0086	0.0002	237	199	156	14	151	2	173	4	97
BJ5-2-02	87	61	182	0.34	0.1622	0.0021	9.5813	0.1437	0.4284	0.0046	0.71	0.1541	0.0032	2479	22	2395	36	2299	24	2881	60	97
BJ5-2-04	4	153	123	1.24	0.0541	0.0047	0.1800	0.0158	0.0241	0.0003	0.15	0.0093	0.0002	374	195	168	15	154	2	186	4	91
BJ5-2-05	4	68	138	0.49	0.0552	0.0040	0.1799	0.0128	0.0237	0.0003	0.17	0.0121	0.0003	419	160	168	12	151	2	241	7	90
BJ5-2-06	110	61	366	0.17	0.1140	0.0015	4.6075	0.0686	0.2931	0.0031	0.71	0.1162	0.0022	1864	24	1751	26	1657	17	2210	41	94
BJ5-2-07	124	83	363	0.23	0.1189	0.0016	5.4349	0.0808	0.3315	0.0034	0.70	0.1078	0.0023	1940	23	1890	28	1846	19	2058	43	97
BJ5-2-10	5	215	154	1.39	0.0542	0.0024	0.1799	0.0083	0.0241	0.0003	0.25	0.0077	0.0002	380	102	168	8	153	2	154	4	91
BJ5-2-11	5	175	182	0.96	0.0569	0.0031	0.1866	0.0102	0.0238	0.0003	0.22	0.0085	0.0002	486	118	174	9	152	2	171	4	87
BJ5-2-12	3	108	96	1.12	0.0517	0.0046	0.1735	0.0151	0.0243	0.0003	0.16	0.0080	0.0002	272	204	162	14	155	2	160	4	95
BJ5-2-13	7	191	247	0.77	0.0549	0.0025	0.1774	0.0084	0.0234	0.0003	0.23	0.0085	0.0002	410	102	166	8	149	2	170	4	90
BJ5-2-14	3	130	113	1.16	0.0587	0.0049	0.1889	0.0158	0.0233	0.0003	0.15	0.0075	0.0002	555	182	176	15	149	2	150	4	85
BJ5-2-15	3	119	120	0.99	0.0519	0.0058	0.1659	0.0176	0.0232	0.0003	0.11	0.0060	0.0002	281	254	156	17	148	2	119	4	95
BJ5-2-16	4	126	171	0.74	0.0525	0.0038	0.1740	0.0128	0.0240	0.0003	0.16	0.0065	0.0002	307	166	163	12	153	2	130	4	94
BJ5-2-17	4	162	122	1.32	0.0513	0.0043	0.1700	0.0140	0.0240	0.0003	0.15	0.0068	0.0002	255	193	159	13	153	2	135	4	96
BJ5-2-18	5	124	183	0.68	0.0522	0.0038	0.1717	0.0124	0.0239	0.0003	0.15	0.0069	0.0002	292	165	161	12	152	2	138	4	95

BJ5-2-19	4	171	135	1.26	0.0553	0.0046	0.1846	0.0153	0.0242	0.0003	0.15	0.0074	0.0002	423	184	172	14	154	2	148	4	90
BJ5-2-20	44	28	128	0.22	0.1150	0.0015	5.3734	0.0808	0.3388	0.0035	0.68	0.0872	0.0019	1881	24	1881	28	1881	19	1681	37	100
BJ5-2-21	35	82	89	0.91	0.1192	0.0017	5.5188	0.0856	0.3358	0.0034	0.66	0.0845	0.0018	1944	25	1904	30	1866	19	1631	34	98
BJ5-2-22	3	138	106	1.31	0.0522	0.0063	0.1716	0.0204	0.0238	0.0003	0.11	0.0072	0.0002	294	274	161	19	152	2	145	4	94
BJ5-2-23	6	187	198	0.95	0.0530	0.0029	0.1704	0.0095	0.0233	0.0003	0.20	0.0079	0.0002	327	125	160	9	149	2	159	4	93
BJ5-2-24	3	93	108	0.86	0.0531	0.0066	0.1723	0.0207	0.0235	0.0003	0.10	0.0088	0.0003	334	283	161	19	150	2	177	6	93
BJ5-2-25	6	194	220	0.88	0.0532	0.0038	0.1719	0.0123	0.0235	0.0003	0.15	0.0083	0.0002	335	164	161	12	149	2	166	5	93
BJ7-1-01	6	46	227	0.20	0.0539	0.0027	0.2020	0.0104	0.0272	0.0003	0.21	0.0128	0.0005	366	114	187	8	173	2	256	10	93
BJ7-1-02	7	68	273	0.25	0.0527	0.0019	0.1950	0.0074	0.0269	0.0003	0.28	0.0108	0.0003	314	84	181	6	171	2	215	6	94
BJ7-1-03	10	66	396	0.17	0.0552	0.0017	0.2025	0.0065	0.0266	0.0003	0.33	0.0127	0.0004	419	69	187	6	169	2	253	8	90
BJ7-1-04	9	76	321	0.24	0.0522	0.0021	0.1908	0.0078	0.0265	0.0003	0.26	0.0126	0.0004	296	92	177	7	169	2	251	7	95
BJ7-1-05	5	43	193	0.22	0.0510	0.0036	0.1952	0.0139	0.0278	0.0003	0.15	0.0133	0.0005	240	163	181	12	177	2	265	10	98
BJ7-1-06	15	127	556	0.23	0.0534	0.0013	0.1953	0.0049	0.0265	0.0003	0.42	0.0107	0.0003	346	55	181	5	169	2	215	5	93
BJ7-1-07	8	75	285	0.26	0.0557	0.0023	0.2062	0.0087	0.0268	0.0003	0.25	0.0112	0.0003	441	92	190	8	171	2	224	6	90
BJ7-1-08	7	62	269	0.23	0.0493	0.0026	0.1816	0.0098	0.0267	0.0003	0.20	0.0115	0.0004	160	123	169	10	170	2	231	8	100
BJ7-1-09	5	35	177	0.20	0.0507	0.0032	0.1890	0.0120	0.0270	0.0003	0.17	0.0133	0.0005	229	146	176	11	172	2	265	11	98
BJ7-1-10	14	103	512	0.20	0.0522	0.0014	0.1934	0.0054	0.0269	0.0003	0.38	0.0118	0.0003	295	60	180	5	171	2	235	6	95
BJ7-1-11	4	28	150	0.18	0.0541	0.0039	0.2049	0.0149	0.0275	0.0003	0.15	0.0165	0.0008	376	164	189	12	175	2	330	15	92
BJ7-1-12	7	59	244	0.24	0.0526	0.0026	0.1969	0.0098	0.0272	0.0003	0.21	0.0145	0.0005	311	111	182	7	173	2	290	9	95
BJ7-1-13	7	69	261	0.26	0.0497	0.0021	0.1836	0.0081	0.0268	0.0003	0.24	0.0118	0.0003	181	101	171	8	170	2	236	6	100
BJ7-1-14	6	41	209	0.20	0.0514	0.0029	0.1915	0.0109	0.0270	0.0003	0.19	0.0113	0.0005	257	130	178	10	172	2	226	9	97
BJ7-1-15	7	100	263	0.38	0.0504	0.0025	0.1836	0.0092	0.0264	0.0003	0.21	0.0103	0.0003	212	114	171	9	168	2	207	5	98
BJ7-1-16	7	60	255	0.24	0.0537	0.0022	0.2000	0.0085	0.0270	0.0003	0.25	0.0121	0.0004	361	94	185	8	172	2	241	7	93
BJ7-1-17	8	56	314	0.18	0.0524	0.0019	0.1973	0.0076	0.0273	0.0003	0.27	0.0118	0.0004	303	84	183	6	174	2	235	7	95
BJ7-1-18	5	38	172	0.22	0.0553	0.0035	0.2080	0.0134	0.0273	0.0003	0.17	0.0127	0.0005	422	141	192	11	174	2	253	10	90
BJ7-1-19	5	47	188	0.25	0.0517	0.0032	0.1922	0.0120	0.0270	0.0003	0.17	0.0110	0.0004	271	142	178	9	172	2	220	8	96
BJ7-1-20	6	61	225	0.27	0.0512	0.0026	0.1897	0.0098	0.0269	0.0003	0.21	0.0117	0.0003	248	117	176	9	171	2	233	7	97
BJ7-1-21	3	28	108	0.26	0.0536	0.0033	0.2017	0.0130	0.0273	0.0004	0.21	0.0120	0.0003	354	141	187	9	174	2	240	6	93
BJ7-1-22	5	46	185	0.25	0.0512	0.0031	0.1929	0.0121	0.0273	0.0003	0.18	0.0138	0.0005	248	140	179	9	174	2	276	10	97
BJ7-1-23	7	46	256	0.18	0.0533	0.0022	0.1989	0.0086	0.0271	0.0003	0.25	0.0103	0.0004	341	95	184	8	172	2	206	7	94
BJ7-1-24	5	45	174	0.26	0.0526	0.0033	0.1937	0.0125	0.0267	0.0003	0.17	0.0103	0.0004	311	144	180	11	170	2	206	7	95
BJ7-1-25	5	38	175	0.21	0.0536	0.0029	0.2017	0.0111	0.0273	0.0003	0.20	0.0087	0.0004	355	122	187	9	174	2	175	8	93
BJ1-1-01	16	324	363	0.89	0.0518	0.0014	0.2548	0.0070	0.0357	0.0003	0.36	0.0158	0.0003	278	60	230	6	226	2	315	6	98
BJ1-1-02	14	136	259	0.53	0.0546	0.0012	0.3641	0.0085	0.0484	0.0005	0.42	0.0194	0.0003	395	50	315	7	305	3	387	7	97
BJ1-1-03	14	167	207	0.81	0.0567	0.0013	0.4637	0.0106	0.0593	0.0006	0.44	0.0223	0.0004	482	50	387	9	371	4	444	7	96
BJ1-1-04	9	231	264	0.88	0.0525	0.0019	0.2034	0.0073	0.0281	0.0003	0.28	0.0106	0.0002	308	81	188	7	179	2	212	3	95
BJ1-1-05	28	233	571	0.41	0.0563	0.0009	0.3602	0.0059	0.0464	0.0005	0.60	0.0172	0.0003	464	34	312	5	292	3	344	5	94
BJ1-1-06	18	301	431	0.70	0.0539	0.0012	0.2712	0.0067	0.0365	0.0004	0.39	0.0145	0.0003	367	52	244	6	231	2	289	6	95
BJ1-1-07	8	126	269	0.47	0.0523	0.0014	0.2002	0.0056	0.0277	0.0003	0.35	0.0122	0.0003	300	62	185	5	176	2	244	5	95
BJ1-1-08	10	250	314	0.80	0.0552	0.0016	0.2103	0.0063	0.0276	0.0003	0.33	0.0097	0.0002	422	65	194	6	176	2	194	4	91
BJ1-1-09	48	499	965	0.52	0.0562	0.0009	0.3641	0.0060	0.0470	0.0005	0.59	0.0152	0.0003	459	34	315	5	296	3	303	7	94
BJ1-1-10	20	201	389	0.52	0.0523	0.0009	0.3488	0.0066	0.0484	0.0005	0.52	0.0164	0.0003	299	41	304	6	304	3	328	6	100
BJ1-1-11	24	716	736	0.97	0.0541	0.0010	0.2090	0.0041	0.0280	0.0003	0.50	0.0089	0.0002	375	41	193	4	178	2	178	3	92

BJ1-1-12	55	613	1496	0.41	0.0534	0.0007	0.2619	0.0039	0.0356	0.0003	0.65	0.0121	0.0002	345	32	236	4	225	2	241	4	95
BJ1-1-13	15	547	410	1.33	0.0534	0.0015	0.2022	0.0066	0.0274	0.0003	0.31	0.0098	0.0002	348	62	187	6	175	2	195	5	93
BJ1-1-14	33	406	781	0.52	0.0558	0.0009	0.3041	0.0052	0.0395	0.0004	0.57	0.0134	0.0003	445	35	270	5	250	2	267	5	93
BJ1-1-15	33	957	1066	0.90	0.0541	0.0009	0.1985	0.0035	0.0266	0.0003	0.56	0.0082	0.0002	377	37	184	3	169	2	164	4	92
BJ1-1-16	18	173	364	0.48	0.0563	0.0010	0.3670	0.0071	0.0472	0.0005	0.50	0.0152	0.0004	466	41	317	6	298	3	304	7	94
BJ1-1-17	136	311	256	1.22	0.1628	0.0021	9.2979	0.1380	0.4142	0.0042	0.69	0.1091	0.0026	2485	22	2368	35	2234	23	2081	50	95
BJ1-1-18	29	505	505	1.00	0.0581	0.0010	0.3822	0.0068	0.0477	0.0005	0.55	0.0147	0.0003	535	37	329	6	300	3	293	6	91
BJ1-1-19	16	291	540	0.54	0.0520	0.0011	0.1967	0.0046	0.0274	0.0003	0.43	0.0098	0.0002	287	50	182	4	174	2	196	4	96
BJ1-1-20	66	271	420	0.65	0.0715	0.0010	1.4328	0.0211	0.1454	0.0014	0.67	0.0399	0.0008	971	28	903	13	875	9	786	15	97
BJ1-1-21	15	157	304	0.52	0.0544	0.0014	0.3400	0.0089	0.0453	0.0004	0.37	0.0159	0.0003	387	57	297	8	286	3	317	6	96
BJ1-1-22	17	272	533	0.51	0.0541	0.0014	0.2122	0.0058	0.0285	0.0003	0.36	0.0132	0.0003	374	57	195	5	181	2	263	6	93
BJ1-1-23	18	406	564	0.72	0.0518	0.0010	0.2021	0.0040	0.0283	0.0003	0.49	0.0111	0.0002	276	43	187	4	180	2	223	4	96
BJ1-1-24	16	200	495	0.40	0.0532	0.0015	0.2059	0.0061	0.0281	0.0003	0.34	0.0172	0.0005	339	62	190	6	178	2	343	10	94
BJ1-1-25	8	55	122	0.45	0.0577	0.0020	0.5038	0.0177	0.0633	0.0006	0.28	0.0255	0.0007	520	76	414	15	396	4	507	13	95
BJ2-1-01	158	140	459	0.30	0.1131	0.0015	5.0716	0.0749	0.3253	0.0034	0.71	0.1164	0.0031	1850	24	1831	27	1815	19	2214	60	99
BJ2-1-02	84	105	202	0.52	0.1259	0.0016	6.3385	0.0943	0.3650	0.0038	0.71	0.1330	0.0032	2042	23	2024	30	2006	21	2511	61	99
BJ2-1-03	121	129	238	0.54	0.1543	0.0020	9.2399	0.1353	0.4345	0.0046	0.72	0.1538	0.0034	2394	22	2362	35	2326	24	2875	64	99
BJ2-1-04	34	50	90	0.55	0.1144	0.0016	5.2033	0.0797	0.3300	0.0035	0.69	0.1246	0.0026	1870	25	1853	28	1838	19	2361	48	99
BJ2-1-05	168	145	309	0.47	0.1643	0.0021	10.7018	0.1587	0.4724	0.0051	0.72	0.1660	0.0032	2500	22	2498	37	2494	27	3087	60	100
BJ2-1-06	463	346	1326	0.26	0.1132	0.0015	5.2177	0.0762	0.3343	0.0035	0.72	0.1174	0.0023	1851	23	1856	27	1859	19	2231	44	100
BJ2-1-07	85	170	216	0.79	0.1133	0.0015	5.1289	0.0759	0.3282	0.0035	0.71	0.1137	0.0023	1854	24	1841	27	1830	19	2164	45	99
BJ2-1-08	224	142	625	0.23	0.1289	0.0017	6.0706	0.0912	0.3416	0.0036	0.71	0.1219	0.0028	2083	23	1986	30	1894	20	2311	52	95
BJ2-1-09	22	36	398	0.09	0.0552	0.0009	0.4395	0.0079	0.0578	0.0006	0.59	0.0233	0.0007	419	37	370	7	362	4	464	14	98
BJ2-1-10	11	259	228	1.14	0.0523	0.0016	0.2686	0.0084	0.0372	0.0004	0.34	0.0142	0.0003	301	70	242	8	236	3	284	6	98
BJ2-1-11	135	47	417	0.11	0.1134	0.0015	5.0729	0.0748	0.3246	0.0034	0.72	0.1060	0.0022	1854	23	1832	27	1812	19	2026	41	99
BJ2-1-12	20	18	46	0.38	0.1535	0.0021	8.4968	0.1323	0.4015	0.0042	0.67	0.1245	0.0027	2385	24	2286	36	2176	23	2359	51	96
BJ2-1-13	96	229	320	0.72	0.1123	0.0015	4.0382	0.0590	0.2609	0.0027	0.71	0.0800	0.0017	1836	24	1642	24	1494	15	1547	34	88
BJ2-1-14	10	101	197	0.51	0.0516	0.0014	0.3352	0.0095	0.0471	0.0005	0.37	0.0175	0.0004	266	63	294	8	297	3	349	9	99
BJ2-1-15	213	206	577	0.36	0.1307	0.0018	6.1630	0.1119	0.3420	0.0040	0.65	0.1087	0.0029	2107	25	1999	36	1896	22	2074	56	95
BJ2-1-16	39	62	110	0.57	0.1117	0.0015	4.9179	0.0747	0.3193	0.0033	0.69	0.1028	0.0030	1827	25	1805	27	1786	19	1966	58	99
BJ2-1-17	5	127	89	1.43	0.0545	0.0029	0.2879	0.0154	0.0383	0.0004	0.21	0.0136	0.0004	393	119	257	14	242	3	272	8	94
BJ2-1-18	9	19	28	0.69	0.1099	0.0023	4.4669	0.0991	0.2947	0.0031	0.48	0.0957	0.0027	1798	38	1725	38	1665	18	1838	52	96
BJ2-1-19	46	80	130	0.61	0.1141	0.0015	4.8928	0.0729	0.3110	0.0032	0.70	0.0966	0.0024	1866	24	1801	27	1745	18	1853	46	96
BJ2-1-20	61	129	169	0.76	0.1133	0.0015	4.8128	0.0714	0.3080	0.0032	0.70	0.0943	0.0021	1854	24	1787	27	1731	18	1811	41	96
BJ2-1-21	10	190	183	1.04	0.0548	0.0022	0.3248	0.0132	0.0430	0.0005	0.26	0.0149	0.0003	406	89	286	12	271	3	298	7	95
BJ2-1-22	13	12	25	0.47	0.1659	0.0025	10.1956	0.1685	0.4456	0.0046	0.63	0.1327	0.0031	2517	25	2453	41	2376	25	2505	59	97
BJ2-1-23	17	187	358	0.52	0.0534	0.0011	0.3323	0.0071	0.0451	0.0005	0.49	0.0153	0.0004	347	46	291	6	284	3	306	7	98
BJ2-1-24	14	221	302	0.73	0.0567	0.0014	0.3124	0.0080	0.0399	0.0004	0.41	0.0168	0.0004	481	54	276	7	252	3	336	8	91
BJ2-1-25	6	121	206	0.59	0.0494	0.0044	0.1678	0.0149	0.0247	0.0003	0.12	0.0102	0.0003	166	208	158	14	157	2	203	6	100
BJ11-1-01	5	117	178	0.66	0.0493	0.0027	0.1683	0.0092	0.0248	0.0003	0.20	0.0104	0.0003	161	126	158	9	158	2	208	6	100
BJ11-1-02	3	58	121	0.48	0.0498	0.0039	0.1715	0.0135	0.0250	0.0003	0.15	0.0109	0.0004	184	183	161	13	159	2	217	8	99
BJ11-1-03	15	288	237	1.22	0.0538	0.0021	0.3595	0.0144	0.0484	0.0005	0.26	0.0173	0.0004	364	90	312	13	305	3	345	7	98
BJ11-1-04	17	146	358	0.41	0.0554	0.0014	0.3598	0.0092	0.0471	0.0005	0.41	0.0156	0.0003	429	55	312	8	297	3	312	6	95

BJ11-1-05	11	103	215	0.48	0.0524	0.0025	0.3382	0.0167	0.0468	0.0005	0.21	0.0157	0.0003	301	110	296	15	295	3	313	7	100
BJ11-1-06	40	449	598	0.75	0.0544	0.0009	0.4441	0.0078	0.0593	0.0006	0.59	0.0202	0.0004	386	37	373	7	371	4	403	8	99
BJ11-1-08	86	64	247	0.26	0.1130	0.0015	5.2311	0.0781	0.3359	0.0034	0.68	0.1087	0.0024	1848	24	1858	28	1867	19	2074	45	99
BJ11-1-09	12	119	231	0.52	0.0563	0.0017	0.3706	0.0117	0.0477	0.0005	0.33	0.0176	0.0004	464	68	320	10	301	3	351	8	94
BJ11-1-10	338	76	1036	0.07	0.1137	0.0015	5.1977	0.0770	0.3315	0.0034	0.69	0.1043	0.0020	1859	24	1852	27	1846	19	1995	39	100
BJ11-1-11	5	90	192	0.47	0.0485	0.0036	0.1623	0.0121	0.0243	0.0003	0.15	0.0090	0.0002	126	174	153	11	155	2	179	4	99
BJ11-1-12	46	73	128	0.57	0.1144	0.0016	5.1472	0.0772	0.3262	0.0033	0.68	0.0917	0.0015	1871	25	1844	28	1820	18	1763	29	99
BJ11-1-13	143	141	410	0.34	0.1148	0.0015	5.2322	0.0768	0.3306	0.0034	0.69	0.0951	0.0015	1876	24	1858	27	1841	19	1827	29	99
BJ11-1-14	6	29	10	2.75	0.1139	0.0054	5.1723	0.2436	0.3294	0.0039	0.25	0.0953	0.0016	1862	85	1848	87	1836	22	1830	30	99
BJ11-1-15	42	102	112	0.91	0.1227	0.0020	5.3067	0.0930	0.3138	0.0032	0.58	0.0897	0.0016	1995	29	1870	33	1759	18	1727	30	93
BJ11-1-16	154	63	475	0.13	0.1132	0.0015	5.0965	0.0753	0.3264	0.0033	0.69	0.0850	0.0016	1852	24	1836	27	1821	18	1640	31	99
BJ11-1-17	398	448	776	0.58	0.1639	0.0022	10.2316	0.1508	0.4526	0.0046	0.69	0.1121	0.0021	2497	22	2456	36	2407	24	2136	40	98
BJ11-1-18	282	112	608	0.18	0.1641	0.0022	10.0044	0.1472	0.4420	0.0045	0.69	0.1159	0.0020	2499	22	2435	36	2360	24	2205	38	97
BJ11-1-19	164	304	463	0.66	0.1168	0.0015	5.0400	0.0740	0.3130	0.0032	0.69	0.0893	0.0014	1908	24	1826	27	1755	18	1719	28	96
BJ11-1-21	141	192	415	0.46	0.1122	0.0015	4.8617	0.0716	0.3143	0.0032	0.69	0.0905	0.0014	1835	24	1796	26	1762	18	1741	27	98
BJ11-1-22	7	125	128	0.98	0.0610	0.0028	0.3830	0.0180	0.0456	0.0005	0.23	0.0147	0.0003	638	100	329	15	287	3	294	5	87
BJ11-1-23	20	36	58	0.61	0.1122	0.0020	4.6338	0.0888	0.2995	0.0031	0.54	0.0911	0.0018	1835	32	1755	34	1689	17	1754	34	95
BJ11-1-24	25	325	488	0.67	0.0503	0.0009	0.3176	0.0063	0.0458	0.0005	0.51	0.0162	0.0003	209	44	280	6	289	3	322	6	97
BJ5-1-03	21	942	667	1.41	0.0486	0.0011	0.1561	0.0037	0.0233	0.0002	0.45	0.0089	0.0002	128	52	147	3	148	2	178	4	99
BJ5-1-04	7	267	229	1.17	0.0522	0.0021	0.1675	0.0068	0.0233	0.0003	0.27	0.0105	0.0002	293	90	157	6	148	2	211	5	94
BJ5-1-05	27	31	62	0.50	0.1280	0.0018	6.8275	0.1060	0.3870	0.0040	0.67	0.1360	0.0027	2070	25	2089	32	2109	22	2563	50	99
BJ5-1-07	19	213	265	0.80	0.0566	0.0013	0.4636	0.0108	0.0594	0.0006	0.46	0.0234	0.0005	475	49	387	9	372	4	465	10	96
BJ5-1-08	50	268	1028	0.26	0.0596	0.0008	0.3844	0.0063	0.0468	0.0005	0.65	0.0245	0.0006	588	31	330	5	295	3	487	12	89
BJ5-1-09	25	209	535	0.39	0.0599	0.0011	0.3637	0.0070	0.0440	0.0005	0.55	0.0192	0.0005	600	40	315	6	278	3	382	10	88
BJ5-1-10	82	50	251	0.20	0.1137	0.0015	4.9858	0.0742	0.3182	0.0033	0.71	0.1151	0.0025	1859	24	1817	27	1781	19	2190	47	98
BJ5-1-11	123	53	372	0.14	0.1211	0.0016	5.4051	0.0795	0.3237	0.0034	0.71	0.1242	0.0028	1972	23	1886	28	1808	19	2354	52	95
BJ5-1-12	5	274	151	1.81	0.0504	0.0044	0.1539	0.0133	0.0222	0.0003	0.13	0.0084	0.0002	211	202	145	13	141	2	167	4	97
BJ5-1-13	4	41	83	0.49	0.0617	0.0034	0.3837	0.0210	0.0451	0.0005	0.20	0.0241	0.0008	665	117	330	18	284	3	478	15	86
BJ5-1-14	5	237	167	1.42	0.0501	0.0028	0.1576	0.0088	0.0228	0.0003	0.20	0.0084	0.0002	200	129	149	8	145	2	169	4	98
BJ5-1-15	10	155	203	0.76	0.0545	0.0018	0.3021	0.0102	0.0402	0.0004	0.31	0.0157	0.0004	394	74	268	9	254	3	313	8	95
BJ5-1-16	231	415	381	1.09	0.1722	0.0023	10.9206	0.1610	0.4599	0.0048	0.70	0.1446	0.0040	2579	22	2516	37	2439	25	2716	74	97
BJ5-1-18	7	376	212	1.78	0.0526	0.0027	0.1687	0.0092	0.0233	0.0003	0.20	0.0089	0.0002	311	118	158	9	148	2	178	5	94
BJ5-1-19	9	89	169	0.53	0.0517	0.0018	0.3506	0.0127	0.0492	0.0005	0.29	0.0186	0.0005	273	82	305	11	309	3	370	10	99
BJ5-1-20	5	167	157	1.06	0.0524	0.0039	0.1687	0.0125	0.0233	0.0003	0.16	0.0094	0.0003	305	168	158	12	149	2	187	5	94
BJ5-1-22	62	73	167	0.44	0.1210	0.0016	5.7197	0.0842	0.3429	0.0036	0.70	0.1070	0.0020	1971	23	1934	28	1900	20	2043	38	98
BJ5-1-23	6	110	243	0.45	0.0561	0.0024	0.1791	0.0079	0.0231	0.0002	0.24	0.0082	0.0002	457	97	167	7	148	2	164	4	88
BJ5-1-24	4	109	152	0.72	0.0522	0.0049	0.1643	0.0153	0.0228	0.0003	0.12	0.0085	0.0002	294	214	154	14	146	2	170	4	94
BJ5-1-25	7	66	319	0.21	0.0521	0.0019	0.1607	0.0060	0.0224	0.0002	0.29	0.0082	0.0003	290	83	151	6	143	2	163	5	94

Note: Errors are 1-sigma; Pb^C—common lead.

Table DR3. Compiled geochronological age data of Mesozoic igneous rocks from the North China Craton and adjacent areas.

Sample name	Latitude	Longitude	Location	Pluton name	Rock type	Age (Ma)	Methods	References
CF06-042	43°40'52"	119°3'19"	NNCC	Chaoyanggou	Granitic mylonite	150 ± 1	LA-ICP-MS	Wang et al. (2010a)
CF06-066	41°54'59"	118°58'54"	NNCC	Molihaigou	Mylonite diorite	128 ± 3	SHRIMP	Wang et al. (2010a)
CF06-042	41°56'16"	119°3'1"	NNCC	Chaoyanggou	Gneissic granite	150 ± 1	SHRIMP	Wang et al. (2010a, 2010b, 2010c)
CF06-066	41°54'59"	118°58'54"	NNCC	Molihaigou	Gneissic granite	128 ± 3	SHRIMP	Wang et al. (2010a, 2010b, 2010c)
Sangului	—	—	NNCC	Sangului	Granite	129 ± 3	TIMS	Wei et al. (2003)
FW04-301	40°17'38"	122°20'57"	NNCC	Gudaoling	Diorite enclave	120 ± 1	LA-ICP-MS	Wu et al. (2005a)
FW04-303	40°17'38"	122°20'57"	NNCC	Gudaoling	Diorite enclave	121 ± 2	LA-ICP-MS	Wu et al. (2005a)
FW04-305	40°17'38"	122°20'57"	NNCC	Gudaoling	Monzogranite	121 ± 1	LA-ICP-MS	Wu et al. (2005a)
FW04-315	39°12'6"	121°54'39"	NNCC	Liangjiatai	Granite dyke	128 ± 2	LA-ICP-MS	Wu et al. (2005a)
FW04-319	40°8'13"	123°9'13"	NNCC	Dafangshen	Quartz diorite	124 ± 3	LA-ICP-MS	Wu et al. (2005a)
FW04-337	40°52'9"	124°35'51"	NNCC	Guanshui	Granodiorite	131 ± 1	LA-ICP-MS	Wu et al. (2005a)
JH-35	40°17'38"	122°20'57"	NNCC	Gudaoling	Diorite enclave	121 ± 3	LA-ICP-MS	Wu et al. (2005a)
03JH047	41°58'51"	121°48'29"	NNCC	Haitangshan	Granite	176 ± 1	LA-ICP-MS	Wu et al. (2006)
03JH054	42°0'43"	121°47'19"	NNCC	Haitangshan	Granite	163 ± 1	LA-ICP-MS	Wu et al. (2006)
03JH059	42°0'43"	121°47'19"	NNCC	Haitangshan	Granite	152 ± 1	LA-ICP-MS	Wu et al. (2006)
FW02-114	40°36'17"	120°31'13"	NNCC	Jianchang	Quartz monzodiorite	157 ± 1	LA-ICP-MS	Wu et al. (2006)
FW02-120	40°42'7"	120°29'2"	NNCC	Jianchang	Granodiorite	185 ± 2	LA-ICP-MS	Wu et al. (2006)
FW02-122	40°42'7"	120°29'2"	NNCC	Jianchang	Granite	190 ± 3	LA-ICP-MS	Wu et al. (2006)
FW02-135	40°56'22"	120°40'47"	NNCC	Yangjiazhangzi	Monzogranite	188 ± 2	LA-ICP-MS	Wu et al. (2006)
FW02-140	40°56'22"	120°40'47"	NNCC	Yangjiazhangzi	Monzogranite	189 ± 4	LA-ICP-MS	Wu et al. (2006)
FW02-144	40°56'0"	120°44'26"	NNCC	Yangjiazhangzi	Monzogranite	182 ± 2	LA-ICP-MS	Wu et al. (2006)
FW02-151	41°37'36"	121°26'10"	NNCC	Jianlazi	Two-mica granite	154 ± 2	LA-ICP-MS	Wu et al. (2006)
FW02-156	41°35'21"	121°28'23"	NNCC	Jianlazi	Two-mica granite	169 ± 10	LA-ICP-MS	Wu et al. (2006)
FW02-158	41°35'21"	121°28'23"	NNCC	Jianlazi	Granite dyke	182 ± 3	LA-ICP-MS	Wu et al. (2006)
FW02-168	41°34'49"	121°42'3"	NNCC	Yiwulvshan	Two-mica granite	163 ± 3	LA-ICP-MS	Wu et al. (2006)
FW02-170	41°34'49"	121°42'3"	NNCC	Yiwulvshan	Granodiorite enclave	153 ± 2	LA-ICP-MS	Wu et al. (2006)
FW02-176	41°15'14"	121°30'5"	NNCC	Shishan	Monzogranite	123 ± 3	LA-ICP-MS	Wu et al. (2006)
FW02-93	40°35'9"	120°5'53"	NNCC	Kuangbang	Quartz monzodiorite	182 ± 2	LA-ICP-MS	Wu et al. (2006)
FW02-95	40° 34'11"	120° 12'51"	NNCC	Jianchang	Monzogranite	153 ± 1	LA-ICP-MS	Wu et al. (2006)
CBL19	—	—	NNCC	Chaobuleng	Bi-granite	137 ± 2	SHRIMP	Xu et al. (2010)
XJY	—	—	NNCC	Xiaojiayingzi	Syengranite	170 ± 1	SHRIMP	Dai et al. (2009)
PRC-18	41° 8'0"	111° 46'0"	NNCC	Daqingshan	Syengranite	119 ± 2	TIMS	Davis and Darby (2010)
PRC-28	41° 0'30"	111° 50'30"	NNCC	Daqingshan	Granodiorite	112 ± 2	TIMS	Davis and Darby (2010)
PRC-30	40° 59'6"	112° 4'56"	NNCC	Shenshuiling	porphyry Potassicalteration rock	136 ± 4	TIMS	Davis and Darby (2010)
PRC-1	—	—	NNCC	Shatuozi	Granodioriteporphyry dyke	151 ± 2	TIMS	Davis et al. (2001)
PRC-10	—	—	NNCC	Fangshan	Pyroxene quartzdiorite	129 ± 1.5	TIMS	Davis et al. (2001)
PRC-11	—	—	NNCC	Wulingshan	Alkali-feldspar granite	129 ± 1.5	TIMS	Davis et al. (2001)
PRC-12	—	—	NNCC	Wulingshan	Granite porphyry	132 ± 1.5	TIMS	Davis et al. (2001)
PRC-13	—	—	NNCC	Panjiadian	Granite	130 ± 1.5	TIMS	Davis et al. (2001)
PRC-15	—	—	NNCC	Yangfang	Monzogranite	118 ± 1.5	TIMS	Davis et al. (2001)
PRC-17	—	—	NNCC	Dahaituo	Granitic mylonite	119 ± 2	TIMS	Davis et al. (2001)
PRC-18	41°8'	111°46'	NNCC	Naobaoshang	Mylonite diorite	119 ± 2	TIMS	Davis et al. (2001)
					Gneissic granite	119 ± 2	TIMS	Davis et al. (2001)

PRC-19	-	-	NNCC	Daguikou	Gneissic granite	117 ± 3	TIMS	Davis et al. (2001)
PRC-2	-	-	NNCC	Dadonggou	Granite	127 ± 2	TIMS	Davis et al. (2001)
PRC-20	-	-	NNCC	Jiashan	Dioritee enclave	113 ± 2	TIMS	Davis et al. (2001)
PRC-21	-	-	NNCC	Guozhangzi	Diorite enclave	111 ± 4	TIMS	Davis et al. (2001)
PRC-3	-	-	NNCC	Wudaohé	Monzogranite	141 ± 2	TIMS	Davis et al. (2001)
PRC-4	-	-	NNCC	Yunmengshan	Granite dyke	142 ± 2	TIMS	Davis et al. (2001)
PRC-5	-	-	NNCC	Shimenshan	Quartz diorite	143 ± 3	TIMS	Davis et al. (2001)
PRC-6	-	-	NNCC	Yunmengshan	Granodiorite	143 ± 3	TIMS	Davis et al. (2001)
PRC-7	-	-	NNCC	Changyuan	Diorite enclave	151 ± 2	TIMS	Davis et al. (2001)
PRC-8	-	-	NNCC	Beishicheng	Granite	159 ± 2	TIMS	Davis et al. (2001)
PRC-9	-	-	NNCC	Xuejiashiliang	Granite	127 ± 1.5	TIMS	Davis et al. (2001)
Heixiongshan	-	-	NNCC	Heixiongshan	Granite	124 ± 1.1	SHRIMP	Deng et al. (2004)
Humen	-	-	NNCC	Humen	Quartz monzodiorit	124 ± 1.8	SHRIMP	Deng et al. (2004)
Heishanzhai	-	-	NNCC	Heishanzhai	Granodiorite	125 ± 1.5	SHRIMP	Deng et al. (2004)
Baicha	-	-	NNCC	Baicha	Granite	127 ± 0.7	SHRIMP	Deng et al. (2004)
Xuejiashiliang	-	-	NNCC	Xuejiashiliang	Monzogranite	130 ± 1.7	SHRIMP	Deng et al. (2004)
Hanjiaochuan	-	-	NNCC	Hanjiaochuan	Monzogranite	138 ± 1.2	SHRIMP	Deng et al. (2004)
Duijiiyu	-	-	NNCC	Duijiiyu	Monzogranite	138 ± 3.6	SHRIMP	Deng et al. (2004)
Yunmengshan	-	-	NNCC	Yunmengshan	Two-mica granite	145 ± 2.7	SHRIMP	Deng et al. (2004)
Changyuan	-	-	NNCC	Changyuan	Two-mica granite	153 ± 3.2	SHRIMP	Deng et al. (2004)
Shicheng	-	-	NNCC	Shicheng	Granite Dyke	156 ± 1.5	SHRIMP	Deng et al. (2004)
Siganding	-	-	NNCC	Siganding	Two-mica Granite	159 ± 1.9	SHRIMP	Deng et al. (2004)
Dashipo	-	-	NNCC	Dashipo	Granodiorite enclave	197 ± 1.9	SHRIMP	Deng et al. (2004)
BHG4	-	-	NNCC	Duimiangou	Monzogranite	128 ± 1	LA-ICP-MS	Fu et al. (2012a, 2012b)
XL03	-	-	NNCC	Xinglonggou	Quartz monzodiorit	144 ± 9	SHRIMP	Gao et al. (2004)
DQ08-100	41°1'25"	112°3'49"	NNCC	Shenshuiling	Monzogranite	140 ± 1	LA-ICP-MS	Guo et al. (2012)
DQ08-110	41°3'41"	112°1'24"	NNCC	Shenshuiling	Bi-granite	148 ± 1	LA-ICP-MS	Guo et al. (2012)
DQ08-38	40°0'14"	111°50'28"	NNCC	Kuisucun	Bi-monzogranite	142 ± 1	LA-ICP-MS	Guo et al. (2012)
DQ08-65-1	40°57'44"	111°53'49"	NNCC	Daqingshan	Granodiorite	142 ± 1	SHRIMP	Guo et al. (2012)
DQ08-68-7	40°58'25"	111°53'28"	NNCC	Daqingshan	Alkali feldspar granite	132 ± 2	LA-ICP-MS	Guo et al. (2012)
DQ08-70	40°59'30"	111°53'6"	NNCC	Kuisucun	Monzogranite	114 ± 1	LA-ICP-MS	Guo et al. (2012)
Hu09-55	41°0'29"	112°6'56"	NNCC	Shenshuiling	Quartzdiorite	138 ± 1	LA-ICP-MS	Guo et al. (2012)
YX270	-	-	NNCC	Zhangwu	Alkalifeldspargranite	126 ± 1	LA-ICP-MS	Huang et al. (2007)
JN0743	-	-	NNCC	Shangshuiquan	Monzogranite	143 ± 1	LA-ICP-MS	Jiang et al. (2009)
20-KL-37	-	-	NNCC	Anjiayingzi	Monzogranite	135 ± 5	TIMS	Li et al. (2004)
20-KL-58	-	-	NNCC	Anjiayingzi	Monzogranite	132 ± 5	TIMS	Li et al. (2004)
LJ023	-	-	NNCC	Jiuliancheng	Monzogranite	157 ± 6	SHRIMP	Li et al. (2004)
LJ037	-	-	NNCC	Gaoliduntai	Syenogranite	156 ± 5	SHRIMP	Li et al. (2004)
Wangtufang	-	-	NNCC	Wangtufang	Dolerite	190 ± 1	LA-ICP-MS	Liu et al. (2012b)
WC08-06	-	-	NNCC	Deshengying	Monzogranite	131 ± 1	SIMS	Meng et al. (2014)
WC08-08	-	-	NNCC	Xunisuba	Syenogranite	140 ± 4	SIMS	Meng et al. (2014)
WC08-11	-	-	NNCC	Guluban	Monzogranite	145 ± 1	SIMS	Meng et al. (2014)
WC08-12	-	-	NNCC	Kuisu	Monzogranite	142 ± 2	SIMS	Meng et al. (2014)
SHSHQ-1	-	-	NNCC	Shangshuiquan	Monzogranite	142 ± 1	SHRIMP	Miao et al. (2002)
C-49	-	-	NNCC	Haoying	Granodiorite	134 ± 1	SHRIMP	Niu et al. (2004)
DZZ-3	-	-	NNCC	Dengzhazi	Diorite	140 ± 2	SHRIMP	Niu et al. (2011)

07FS02	-	-	NNCC	Fangshan	Monzogranite	132 ± 2	LA-ICP-MS	Sun et al. (2010)
07FS02	-	-	NNCC	Fangshan	Monzogranite	133 ± 1	SI-MS	Sun et al. (2010)
07FS09	-	-	NNCC	Fangshan	Bi-amphibole plagiogneiss	130 ± 1	LA-ICP-MS	Sun et al. (2010)
07FS09	-	-	NNCC	Fangshan	Muscovite granite	132 ± 3	SI-MS	Sun et al. (2010)
07FS11	-	-	NNCC	Fangshan	Bi-granite	134 ± 2	LA-ICP-MS	Sun et al. (2010)
07FS11	-	-	NNCC	Fangshan	Granite porphyry	130 ± 1	SI-MS	Sun et al. (2010)
08FS02	-	-	NNCC	Fangshan	Granite porphyry	134 ± 1	SI-MS	Sun et al. (2010)
08FS10	-	-	NNCC	Fangshan	Syenogranite	132 ± 1	SI-MS	Sun et al. (2010)
Ln09630-10	-	-	NNCC	Liaonan	Quartz-monzonite porphyry	115 ± 1	LA-ICP-MS	Wang et al. (2012a)
Ln09630-11.1	-	-	NNCC	Wanfu	Syenogranite	170 ± 1	LA-ICP-MS	Wang et al. (2012a)
Ln805012b	-	-	NNCC	Liaonan	Quartz porphyry	129 ± 2	LA-ICP-MS	Wang et al. (2012a)
05FW064	43°13'33"	117°32'30"	NNCC	Jingpeng	Syenogranite	141 ± 1	LA-ICP-MS	Wu et al. (2011a, 2011b)
F04-033	-	-	NNCC	Xiangshan	Monzogranite	117 ± 1	LA-ICP-MS	Yang et al. (2008a)
F04-067	-	-	NNCC	Houhushan	Quartz-monzonite porphyry	120 ± 1	LA-ICP-MS	Yang et al. (2008a)
F04-073	-	-	NNCC	Houhushan	Monzogranite	118 ± 1	LA-ICP-MS	Yang et al. (2008a)
F04-106	-	-	NNCC	Qiancengbei	Granodiorite porphyry	129 ± 1	LA-ICP-MS	Yang et al. (2008a)
F04-111	-	-	NNCC	Wulingshan	Granite porphyry	129 ± 1	LA-ICP-MS	Yang et al. (2008a)
F04-113	-	-	NNCC	Wulingshan	Granite porphyry	130 ± 1	LA-ICP-MS	Yang et al. (2008a)
F04-114	-	-	NNCC	Wulingshan	Granite porphyry	130 ± 1	LA-ICP-MS	Yang et al. (2008a)
FX18	-	-	NNCC	Gangjia	Granodiorite	153 ± 5	SHRIMP	Zhang et al. (2008a, 2008b)
HP9	-	-	NNCC	Hengshan	Granodiorite	167 ± 6	SHRIMP	Zhang et al. (2010a, 2010b, 2010c, 2010d, 2010e, 2010f)
1021	-	-	NNCC	Qianzhangzi	Bi-Granite	164 ± 4	SHRIMP	Zhang et al. (2014)
07D010-1	42°5'56"	119°7'34"	NNCC	Zhoujiawopu	Pegmatite	159 ± 2	LA-ICP-MS	Zhang et al. (2014)
07D044-1	42°33'39"	118°27'52"	NNCC	Gangzi	Pegmatite	138 ± 2	LA-ICP-MS	Zhang et al. (2014)
07D046-1	42°30'8"	118°47'19"	NNCC	Jianchang	Pegmatite	171 ± 3	LA-ICP-MS	Zhang et al. (2014)
08008-1	40°44'39"	118°8'47"	NNCC	Chengde	Pegmatite	159 ± 2	LA-ICP-MS	Zhang et al. (2014)
09018-1	40°26'4"	118°31'4"	NNCC	Nianziyu	Pegmatite	165 ± 2	LA-ICP-MS	Zhang et al. (2014)
09043-1	41°12'44"	119°39'6"	NNCC	Liuguanyingzi	Pegmatite	124 ± 2	LA-ICP-MS	Zhang et al. (2014)
09061-1	42°1'14"	120°28'48"	NNCC	Chengjiawopu	Peralkaline granite	164 ± 1	LA-ICP-MS	Zhang et al. (2014)
10018-1	40°35'53"	117°53'35"	NNCC	Shouwangfen	Sheared amphibole–Bi-quartz diorite	133 ± 1	LA-ICP-MS	Zhang et al. (2014)
10036-1	40°43'47"	118°7'45"	NNCC	Chengde	Hornblende subalka quartz diorite	161 ± 2	LA-ICP-MS	Zhang et al. (2014)
10096-1	-	-	NNCC	Yunwushan	Hornblende subalka quartz diorite	138 ± 1	LA-ICP-MS	Zhang et al. (2014)
HPQ020817	-	-	NNCC	Qianzhangzi	Peralkaline granite	166 ± 2	SHRIMP	Zhang et al. (2014)
LLX020811	41°1'5"	116°37'57"	NNCC	Xingzhangzi	Two-Mica pegmatite	165 ± 2	SHRIMP	Zhang et al. (2014)
SGD-1	40°28'34"	117°7'17"	NNCC	Siganding	Bt-amph granite	160 ± 5	SHRIMP	Zhang et al. (2014)
Fangshan	-	-	NNCC	Fangshan	Granosyenite	131 ± 1	SHRIMP	Cai et al. (2005)
ZKD	-	-	NNCC	Fangshan	Leucocratic granites	131 ± 1	SHRIMP	Cai et al. (2005)
ZB-1	-	-	NNCC	Banlashan	Granite	132 ± 1	SHRIMP	Zeng et al. (2009)
Lanjiagou	-	-	NNCC	Lanjiagou	Mylonitic granite	189 ± 1	SHRIMP	Dai et al. (2008)
HH-1	-	-	NNCC	Niuxinshan	Granite	173 ± 2	SHRIMP	Guo et al. (2009)
T-1	-	-	NNCC	Tangzhangzi	Granite	173 ± 2	SHRIMP	Guo et al. (2009)
WC08-06	-	-	NNCC	Hutoushan	Bi-syenogranite	131 ± 1	SIMS	He et al. (2010)
DB101	-	-	NNCC	Huanghuacheng	Bi-monzogranite	133 ± 1	LA-ICP-MS	Jiao et al. (2013)
DB104	-	-	NNCC	Fenshuijing	Bi-monzogranite	129 ± 1	LA-ICP-MS	Jiao et al. (2013)
DB107-2	-	-	NNCC	Tieluzi	Bi-monzogranite	137 ± 1	LA-ICP-MS	Jiao et al. (2013)

DB101	-	-	NNCC	Huanghuacheng	Granite porphyry	133 ± 1	LA-ICP-MS	Jiao et al. (2013)
DB104	-	-	NNCC	Fenshuling	Bi-plagiogranite	129 ± 1	LA-ICP-MS	Jiao et al. (2013)
DB107-2	-	-	NNCC	Tieluzi	Monzogranite	137 ± 1	LA-ICP-MS	Jiao et al. (2013)
DH-23	-	-	NNCC	Daolanghuduge	Syenogranite	139 ± 2	SHRIMP	Xie et al. (2012)
SBZ09-17	40°16'18"	118°43'28"	NNCC	Siboz-Liubozi	Granite porphyry	190 ± 1	LA-ICP-MS	Li et al. (2012a)
SBZ09-33	40°17'14"	118°43'4"	NNCC	Siboz-Liubozi	Monzogranite	160 ± 1	LA-ICP-MS	Li et al. (2012a)
SBZ09-51	40°15'48"	118°41'31"	NNCC	Siboz-Liubozi	Monzogranite	177 ± 1	LA-ICP-MS	Li et al. (2012a)
SBZ09-56	40°15'51"	118°42'31"	NNCC	Siboz-Liubozi	Granite porphyry	196 ± 1	LA-ICP-MS	Li et al. (2012a)
WY-48	-	-	NNCC	Yunmengshan	Gneissic granite	144 ± 4	SHRIMP	Liu et al. (2004a, 2004b)
No. 1	-	-	NNCC	Hongdunliang	Granite	144 ± 2	SHRIMP	Liu et al. (2010)
No. 4	-	-	NNCC	Donggoulou	Granite	138 ± 2	SHRIMP	Liu et al. (2010)
1	-	-	NNCC	Hongdunliang	Bi-monzogranite	144 ± 2	SHRIMP	Liu et al. (2010)
4	-	-	NNCC	Donggoulou	Bi-monzogranite	138 ± 2	SHRIMP	Liu et al. (2010)
QSHK-2	-	-	NNCC	Qingshankou	Granite	199 ± 2	SHRIMP	Luo et al. (2001a)
NXSH-2	-	-	NNCC	Niuxinshan	Granite	172 ± 2	SHRIMP	Luo et al. (2001b)
YEY-3	-	-	NNCC	Yuerya	Granite	175 ± 1	SHRIMP	Luo et al. (2001b)
YEY-8	-	-	NNCC	Yuerya	Granite	174 ± 3	SHRIMP	Luo et al. (2001b)
PSHL-1	-	-	NNCC	Paishanlou	Dioritic porphyrite	126 ± 2	SHRIMP	Luo et al. (2001c)
PSHL-10	-	-	NNCC	Paishanlou	Dioritic porphyrite	125 ± 1	SHRIMP	Luo et al. (2001c)
PSHL-2	-	-	NNCC	Paishanlou	Granite porphyry	124 ± 1	SHRIMP	Luo et al. (2001c)
PSHL-4	-	-	NNCC	Paishanlou	Bi-granite	124 ± 1	SHRIMP	Luo et al. (2001c)
NXSH-2	-	-	NNCC	Niuxinshan	Monzogranite	172 ± 2	SHRIMP	Luo et al. (2001d)
PSHL-1	-	-	NNCC	Paishanlou	Dioritic porphyrite dyke	126 ± 2	SHRIMP	Luo et al. (2001d)
PSHL-10	-	-	NNCC	Paishanlou	Dioritic porphyrite	125 ± 1	SHRIMP	Luo et al. (2001d)
PSHL-2	-	-	NNCC	Paishanlou	Granite porphyry dyke	124 ± 1	SHRIMP	Luo et al. (2001d)
QSHAK-2	-	-	NNCC	Qingshankou	Bi-granite	199 ± 2	SHRIMP	Luo et al. (2001d)
YEY-3	-	-	NNCC	Yuerya	Granite	175 ± 1	SHRIMP	Luo et al. (2001d)
By98055	-	-	NNCC	Beichagoumen	Bi-adamellite	146 ± 1	TIMS	Mao et al. (2003)
By98076	-	-	NNCC	Beichagoumen	Adamellite	139 ± 1	TIMS	Mao et al. (2003)
By99077	-	-	NNCC	Beichagoumen	Adamellite	148 ± 2	TIMS	Mao et al. (2003)
By993187	-	-	NNCC	Beichagoumen	Syenogranite	139 ± 1	TIMS	Mao et al. (2003)
Zk201G	-	-	NNCC	Beichagoumen	Granodiorite porphyry	146 ± 4	TIMS	Mao et al. (2003)
HDMG-19	-	-	NNCC	Hadamengou	Potassic plteration Rock	132 ± 2	SHRIMP	Miao et al. (2000)
EDG-3	-	-	NNCC	Xiduimiangou	Granodiorite porphyry dyke	126 ± 1	SHRIMP	Miao et al. (2003)
EDG-7	-	-	NNCC	Loushang	Pyroxene quartzdiorite	161 ± 1	SHRIMP	Miao et al. (2003)
WB08-N3	-	-	NNCC	Narenwula	Alkali-feldspar Granite	145 ± 1	LA-ICP-MS	Qin et al. (2012)
WB08-N8	-	-	NNCC	Baiqi	Granite porphyry	135 ± 1	LA-ICP-MS	Qin et al. (2012)
21T-46	-	-	NNCC	Xiaodonggou	Granite	142 ± 2	SHRIMP	Tan et al. (2009)
ZK150-19	-	-	NNCC	Luoguhe	Monzogranite	131 ± 2	LA-ICP-MS	Wang et al. (2010a, 2010b, 2010c)
Nianzigou	-	-	NNCC	Nianzigou	Bi-monzogranite	152 ± 2	SHRIMP	Zhang et al. (2011)
10095-1	41°2'34.62"	116°38'3.06"	NCC	Yunwushan	Monzogranite	247 ± 2	LA-ICP-MS	Zhang et al. (2014)
10097-1	40°56'54.12"	116°37'27.42"	NCC	Yunwushan	Monzogranite	244 ± 2	LA-ICP-MS	Zhang et al. (2014)
07233-1	40°48'24"	109°37'9.18"	NCC	Shadegai	Alkaline granite	235 ± 3	LA-ICP-MS	Zhang et al. (2014)
D478	41°4'5.88"	116°46'2.52"	NCC	Jizhazi	Monzogranite	229 ± 5	LA-ICP-MS	Zhang et al. (2014)
07D006-1	42°5'25.44"	119°3'24.48"	NCC	Zhoujiawopu	Quartz trachyandesite	169 ± 1	LA-ICP-MS	Zhang et al. (2014)
07D010-1	42°5'56.22"	119°7'33.84"	NCC	Zhoujiawopu	Quartz monzodiorite	159 ± 2	LA-ICP-MS	Zhang et al. (2014)

07D046-1	42°30'8.04"	118°47'16.86"	NCC	Jianchang	Dioritic porphyrite	171 ± 3	LA-ICP-MS	Zhang et al. (2014)
1021			NCC	Qianzhangzi	Syenite	164 ± 4	SHRIMP	Zhang et al. (2014)
HPQ020817			NCC	Qianzhangzi	Diorite	166 ± 2	SHRIMP	Zhang et al. (2014)
SGD-1	40°28'34.02"	117°7'16.8"	NCC	Siganding	Quartz monzodiorite	160 ± 5	SHRIMP	Zhang et al. (2014)
LLX020811			NCC	Xingzhangzi	Quartz porphyry	165 ± 2	SHRIMP	Zhang et al. (2014)
08005-4	40°33'22.68"	117°44'56.16"	NCC	Shouwangfen	Andesite	161 ± 2	LA-ICP-MS	Zhang et al. (2014)
08008-1	40°44'38.58"	118°8'46.5"	NCC	Chengde county	Dioritic porphyrite	159 ± 2	LA-ICP-MS	Zhang et al. (2014)
08170-2	42°18'3.9"	120°16'23.76"	NCC	Peijadian	Rhyolitic tuff	162 ± 2	LA-ICP-MS	Zhang et al. (2014)
09018-1	40°26'4.14"	118°31'3.96"	NCC	Nianziyu	Diorite	165 ± 2	LA-ICP-MS	Zhang et al. (2014)
09061-1	42°1'14.4"	120°28'47.82"	NCC	Daheishan	Quartz monzonite	164 ± 1	LA-ICP-MS	Zhang et al. (2014)
09064-1	42°18'7.2"	120°16'36.72"	NCC	Nantaxiang	Rhyolite	164 ± 3	LA-ICP-MS	Zhang et al. (2014)
09075-1	42°33'53.4"	119°39'11.4"	NCC	East Laohahe	Rhyolitic tuff	163 ± 2	LA-ICP-MS	Zhang et al. (2014)
09354-1	43°5'30"	124°43'3.3"	NCC	Shilingzhen	Granodiorite	164 ± 2	LA-ICP-MS	Zhang et al. (2014)
09361-1	42°43'38.94"	124°17'31.56"	NCC	Weiyuanbuzhen	Granodiorite	173 ± 3	LA-ICP-MS	Zhang et al. (2014)
D078-2	41°1'30.12"	117°4'38.7"	NCC	Lingying	Dacite	156 ± 4	LA-ICP-MS	Zhang et al. (2014)
10036-1	40°43'47.28"	118°7'45.06"	NCC	Chengde county	Dioritic porphyrite	161 ± 2	LA-ICP-MS	Zhang et al. (2014)
07D044-1	42°33'38.64"	118°27'51.66"	NCC	Gangzi	Quartz syenite porphyry	138 ± 2	LA-ICP-MS	Zhang et al. (2014)
09043-1	41°12'43.68"	119°39'6.18"	NCC	Liuguanyingzi	Dioritic porphyrite	124 ± 2	LA-ICP-MS	Zhang et al. (2014)
10018-1	40°35'52.68"	117°53'35.16"	NCC	Shouwangfen	Quartz diorite	133 ± 1	LA-ICP-MS	Zhang et al. (2014)
10096-1	41°1'4.2"	116°37'57.12"	NCC	Yunwushan	Granodiorite	138 ± 1	LA-ICP-MS	Zhang et al. (2014)
10107-1	40°4'49.92"	115°26'38.28"	NCC	Guanyindian	Granite	139 ± 2	LA-ICP-MS	Zhang et al. (2014)
08005-1	40°33'26.82"	117°44'56.46"	NCC	Shouwangfen	Andesite porphyrite	128 ± 1	LA-ICP-MS	Zhang et al. (2014)
10205-1	41°25'55.14"	109°58'32.1"	NCC	Hejiao	Rhyolite	128 ± 1	LA-ICP-MS	Zhang et al. (2014)
10207-1	41°31'0.24"	109°54'22.68"	NCC	Hejiao	Rhyolitic tuff	131 ± 2	LA-ICP-MS	Zhang et al. (2014)
TH7-10	41°57'4"	127°0'15"	NE China	Linjiang	Rhyolite	222 ± 1	LA-ICP-MS	Yu et al. (2009)
HS14-1	44°21'36"	131°7'6"	NE China	Nantianmen	Rhyolite	214 ± 2	LA-ICP-MS	Xu et al. (2009)
HS13-1	44°13'25"	131°6'25"	NE China	Nantianmen	Rhyolite	217 ± 1	LA-ICP-MS	Xu et al. (2009)
YB1-3	43°20'23"	129°22'54"	NE China	Tianqiaoling	Rhyolite	201 ± 1	LA-ICP-MS	Xu et al. (2009)
HS15-1	44°16'7"	131°5'50"	NE China	Xintunzi	Rhyolite	208 ± 1	LA-ICP-MS	Xu et al. (2009)
HS8-2	44°25'6"	130°55'18"	NE China	Suiyangzhen	Dacite	184 ± 2	LA-ICP-MS	Xu et al., (2009)
HD6-1	43°38'46"	130°45'54"	NE China	Laoheishan	Basaltic andesite	180 ± 1	LA-ICP-MS	Xu et al., (2009)
HS1-1	44°41'38"	130°33'11"	NE China	Maqiaohe town	Dacite	96 ± 3	LA-ICP-MS	Xu et al., (2009)
JRH01	46°31'30"	133°38'39"	NE China	Changzhengqiao	Dacite	116 ± 2	LA-ICP-MS	Xu et al., (2009)
JRH03	46°8'56"	132°50'39"	NE China	Quanza	Andesite	129 ± 3	LA-ICP-MS	Xu et al., (2009)
HY1-1	46°26'51"	129°48'11"	NE China	Dongfanghong	Andesite	112 ± 1	LA-ICP-MS	Xu et al., (2009)
HY4-1	46°27'24"	130°7'25"	NE China	Qinglongshan	Dacite	110 ± 2	LA-ICP-MS	Xu et al., (2009)
HM2-1	45°44'27"	132°2'60"	NE China	Xingkai town	Rhyolite	122 ± 2	LA-ICP-MS	Xu et al., (2009)
HM1-1	45°39'47"	131°52'1"	NE China	Peide town	Rhyolite	116 ± 1	LA-ICP-MS	Xu et al., (2009)
HQ3-1	45°48'57"	130°57'4"	NE China	Qitaihe	Rhyolite	124 ± 3	LA-ICP-MS	Xu et al., (2009)
YB1-1	43°20'23"	129°22'54"	NE China	Tianqiaoling	Dacite	175 ± 3	LA-ICP-MS	Xu et al., (2009)
YW3-1	43°12'24"	129°58'9"	NE China	Manhe	Andesite	187 ± 6	LA-ICP-MS	Xu et al., (2009)
YB4-1	43°7'55"	129°7'54"	NE China	Tuntianying	Andesite	97 ± 1	LA-ICP-MS	Xu et al., (2009)
YB4-9	43°0'18"	129°11'19"	NE China	Badaogou	Dacite	88 ± 2	LA-ICP-MS	Xu et al., (2009)
YB2-1	43°9'50"	129°34'19"	NE China	Ciweigou	Andesite	176 ± 3	LA-ICP-MS	Xu et al., (2009)
YH10-1	43°26'30"	129°0'45"	NE China	Helong county	Andesite	108 ± 3	LA-ICP-MS	Xu et al., (2009)
YB2-12	43°15'25"	130°7'7"	NE China	Wangqiang county	Andesite	107 ± 1	LA-ICP-MS	Xu et al., (2009)

SF01-1	44°21'39"	131°2'52"	NE China	Suifenhe city	Dacite	93 ± 1	LA-ICP-MS	Ji et al. (2007)
SF03-4	44°23'47"	131°6'51"	NE China	Suifenhe city	Andesite	106 ± 1	LA-ICP-MS	Ji et al. (2007)
TH7-20	41°58'19"	127°0'20"	NE China	Linjiang	Pyroxene andesite	131 ± 4	LA-ICP-MS	Yu et al. (2009)
LJ18-1	41°43'7"	127°4'27"	NE China	Linjiang	Rhyolite	113 ± 4	LA-ICP-MS	Yu et al. (2009)
HDL1-1	45°43'56"	129°17'21"	NE China	Dongfenglinchang	Meta-basalt	209 ± 3	LA-ICP-MS	Xu et al., (2009)
HDL1-2	45°43'56"	129°17'21"	NE China	Dongfenglinchang	Rhyolite	214 ± 3	LA-ICP-MS	Xu et al., (2009)
HDY16-1	45°4'54"	129°15'48"	NE China	Xinxinglinchang	Basaltic andesite	211 ± 2	LA-ICP-MS	Xu et al., (2009)
HDY21-1	45°4'54"	129°16'17"	NE China	Xinxinglinchang	Meta-andesite	218 ± 1	LA-ICP-MS	Xu et al., (2009)
HB38-1	45°25'30"	127°53'21"	NE China	Heilonggong town	Basaltic andesite	173 ± 3	LA-ICP-MS	Xu et al., (2009)
HB37-1	45°22'42"	128°24'28"	NE China	Qinglongtun	Andesite	228 ± 2	LA-ICP-MS	Xu et al., (2009)
HB13-1	45°34'7"	127°8'18"	NE China	Hongxing reservoir	Basalt	174 ± 2	LA-ICP-MS	Xu et al., (2009)
HB10-1	45°42'25"	127°19'33"	NE China	Sandaogang	Rhyolite	175 ± 1	LA-ICP-MS	Xu et al., (2009)
HYC13-1	47°33'47"	128°24'4"	NE China	Shashilu	Rhyolite	185 ± 1	LA-ICP-MS	Xu et al., (2009)
HB28-1	45°32'20"	127°47'36"	NE China	Wangjiaguanzi	Dacite	190 ± 1	LA-ICP-MS	Xu et al., (2009)
HYC2-1	47°56'37"	128°53'57"	NE China	Qingshan	Rhyolite	187 ± 2	LA-ICP-MS	Xu et al., (2009)
HB4-1	45°35'10"	127°41'46"	NE China	Shisanhucun	Rhyolite	190 ± 1	LA-ICP-MS	Xu et al., (2009)
HYL2-1	46°11'55"	127°39'28"	NE China	Bayan	Trachyandesite	179 ± 2	LA-ICP-MS	Xu et al., (2009)
HYL3-1	46°11'55"	127°39'30"	NE China	Bayan	Rhyolite	184 ± 2	LA-ICP-MS	Xu et al., (2009)
HTW4-1	48°44'9"	129°20'5"	NE China	Northeastern Yichun city	Andesite	108 ± 1	LA-ICP-MS	Xu et al., (2009)
HYC1-1	47°56'37"	128°53'57"	NE China	Qingshan	Rhyolite	102 ± 1	LA-ICP-MS	Xu et al., (2009)
PK10-6	43°53'31"	124°14'49"	NE China	Shiwu fault	Trachydacite	129 ± 2	LA-ICP-MS	Pei et al. (2008)
SN190-12	44°55'0"	123°24'43"	NE China	Western slope	Trachyandesite	133 ± 1	LA-ICP-MS	Pei et al. (2008)
SN72-5	43°40'52"	124°36'56"	NE China	Shiwu fault	Basaltic andesite	118 ± 6	LA-ICP-MS	Pei et al. (2008)
SN56-7	43°47'58"	124°29'5"	NE China	Shiwu fault	Trachyandesite	116 ± 1	LA-ICP-MS	Pei et al. (2008)
L47-1	43°49'11"	124°28'35"	NE China	Shiwu fault	Basaltic andesite	114 ± 4	LA-ICP-MS	Pei et al. (2008)
SN108-2	43°40'52"	124°20'43"	NE China	Central depression	Rhyolite	119 ± 1	LA-ICP-MS	Pei et al. (2008)
SN118-1	43°50'40"	124°32'30"	NE China	Shiwu fault	Basaltic andesite	110 ± 16	LA-ICP-MS	Pei et al. (2008)
ER18-1	50°44'2"	120°11'57"	NE China	Shanghulin	Basaltic andesite	182 ± 2	LA-ICP-MS	Xu et al., (2009)
MZ2-1	49°17'44"	117°31'30"	NE China	Western Hulun Lake	Pyroxene andesite	166 ± 2	LA-ICP-MS	Meng et al. (2011)
ER17-1	50°44'45"	120°11'19"	NE China	Eastern Ehe town	Rhyolite	143 ± 4	LA-ICP-MS	Xu et al. (2011)
ZKX24-04	49°21'36"	117°33'28"	NE China	Well depth of 500m	Trachydacite	142 ± 1	LA-ICP-MS	Meng et al. (2011)
MZ1-1	49°17'33"	117°31'36"	NE China	Western Hulun Lake	Dacitic ignimbrite	141 ± 1	LA-ICP-MS	Meng et al. (2011)
MZ21-1	49°26'42"	117°2'31"	NE China	Dashimo	Olivine basalt	129 ± 2	LA-ICP-MS	Meng et al. (2011)
ZKX24-00	49°19'16"	117°32'22"	NE China	Well depth of 255m	Basaltic andesite	123 ± 2	LA-ICP-MS	Meng et al. (2011)
ER3-1	50°19'57"	120°15'1"	NE China	Genheqiaobei	Basaltic andesite	125 ± 2	LA-ICP-MS	Xu et al. (2011)
ER19-2	50°42'37"	120°12'52"	NE China	Shanghulin	Basaltic andesite	127 ± 1	LA-ICP-MS	Xu et al. (2011)
ZKD2-1	50°46'32"	120°11'35"	NE China	Well depth of 386 m	Basaltic andesite	128 ± 3	LA-ICP-MS	Xu et al. (2011)
MZ20-1	49°25'27"	117°4'48"	NE China	Dashimo	Trachydacite	127 ± 3	LA-ICP-MS	Meng et al. (2011)
ER16-1	50°45'57"	120°10'37"	NE China	Eastern Ehe town	Rhyolite	124 ± 1	LA-ICP-MS	Xu et al. (2011)
MZ5-3	49°20'6"	117°30'33"	NE China	Western Hulun Lake	Dacite	125 ± 1	LA-ICP-MS	Meng et al. (2011)
MZ7-1	49°21'16"	117°34'22"	NE China	Western Hulun Lake	Andesite	125 ± 2	LA-ICP-MS	Meng et al. (2011)
ER1-1	49°59'57"	120°6'50"	NE China	Genhe	Trachyandesite	128 ± 2	LA-ICP-MS	Xu et al. (2011)
ER9-1	50°47'12"	119°52'54"	NE China	Eastern Ehe town	Trachydacite	125 ± 1	LA-ICP-MS	Xu et al. (2011)
MZ10-1	49°23'56"	117°25'21"	NE China	Western Hulun Lake	Pyroxene andesite	125 ± 2	LA-ICP-MS	Meng et al. (2011)
ER5-1	50°26'14"	120°0'54"	NE China	Genheqiaobei	Andesite	114 ± 3	LA-ICP-MS	Xu et al. (2011)