Appendix-B $^{40}Ar/^{39}Ar$ Analytical Data

Table B.1

Note: These $^{40}Ar/^{39}Ar$ experiments were measured using a GV Instruments 5400® mass spectrometer at Guangzhou Institute of Geochemistry, Chinese Academy of Sciences. The mass spectrometer is equipped with a high Faraday and an electron multiplier. The Faraday feedback resistor is $10^{11}\Omega$. The source trap current is set at 200 μA during measurement. The signal intensity ratio of the multiplier to the Faraday is about 0.84. The argon isotopes are listed in **volt**. The multiplier sensitivity of this 5400® mass spectrometer is 1.64×10^{-15} mol/mV. A COHERENT© 50W CO_2 laser (spot size 3 mm) is used for stepwise heating. Data marked with "🗐" were included in the calculations for the isochron ages.

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^*$	Age ± 2σ (Ma)	$^{40}Ar^*$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
Amphibole 09NQ08Amp by Laser step heating, J=0.0049582, I_0=295.5, Yuka terrane										
1	5.0 %	0.00018	0.00223	0.00006	0.00041	0.60366	3834.6 ± 14.6	91.77	0.69	0.102 ± 0.013
2	6.0 %	0.00016	0.02838	0.00030	0.00427	0.94385	1334.5 ± 4.1	95.12	7.24	0.084 ± 0.010
3	6.5 %	0.00011	0.02557	0.00030	0.00396	0.69026	1123.8 ± 3.6	95.61	6.71	0.087 ± 0.010
4	7.0 %	0.00013	0.02950	0.00034	0.00468	0.84331	1151.1 ± 4.0	95.67	7.94	0.089 ± 0.011
5	7.5 %	0.00009	0.03736	0.00041	0.00560	0.82404	988.3 ± 3.3	96.89	9.49	0.084 ± 0.010
6	8.5 %	0.00020	0.06293	0.00098	0.00926	1.94876	1289.1 ± 3.9	97.02	15.70	0.082 ± 0.010
7	9.5 %	0.00013	0.05410	0.00056	0.00735	1.13769	1027.5 ± 3.5	96.61	12.46	0.076 ± 0.009
8	10.5 %	0.00014	0.07504	0.00083	0.00980	1.60701	1073.6 ± 3.4	97.52	16.61	0.073 ± 0.009
9	11.5 %	0.00004	0.02450	0.00024	0.00344	0.43753	881.9 ± 3.1	97.63	5.83	0.079 ± 0.009
10	12.5 %	0.00006	0.03989	0.00040	0.00529	0.78553	996.0 ± 3.5	97.77	8.96	0.074 ± 0.009
11	14.0 %	0.00006	0.03852	0.00037	0.00431	0.70028	1065.5 ± 3.6	97.72	7.31	0.063 ± 0.007
12	17.0 %	0.00001	0.00665	0.00005	0.00063	0.07184	809.8 ± 4.3	96.70	1.07	0.053 ± 0.006
Amphibole 09NQ15Amp by Laser step heating, J=0.00494339, I_0=295.5, Yuka terrane										
1	6.0 %	0.00033	0.02634	0.00042	0.00306	0.38073	864.6 ± 4.6	79.50	5.12	0.065 ± 0.008
2	6.8 %	0.00030	0.03787	0.00062	0.00412	0.43745	760.4 ± 3.5	83.24	6.91	0.061 ± 0.007
3	7.3 %	0.00017	0.04202	0.00059	0.00452	0.38801	638.3 ± 2.9	88.57	7.57	0.060 ± 0.007
4	8.0 %	0.00025	0.04794	0.00065	0.00503	0.46213	675.7 ± 3.1	86.26	8.42	0.059 ± 0.007
5	8.5 %	0.00013	0.03686	0.00048	0.00391	0.32585	622.0 ± 2.8	89.09	6.55	0.059 ± 0.007
6	9.0 %	0.00012	0.03210	0.00044	0.00351	0.29120	620.3 ± 2.9	89.04	5.87	0.061 ± 0.007
7	9.5 %	0.00014	0.02693	0.00039	0.00290	0.26570	674.7 ± 3.5	86.54	4.85	0.060 ± 0.007
8	10.0 %	0.00009	0.02131	0.00029	0.00233	0.20176	642.5 ± 3.0	88.32	3.90	0.061 ± 0.007
9	10.5 %	0.00006	0.00855	0.00010	0.00083	0.08716	753.8 ± 4.8	83.71	1.39	0.054 ± 0.006
10	11.0 %	0.00004	0.01764	0.00024	0.00208	0.15833	575.5 ± 4.6	92.59	3.49	0.066 ± 0.008
11	13.0 %	0.00007	0.04693	0.00062	0.00475	0.38929	613.8 ± 2.3	94.94	7.95	0.057 ± 0.007
12	15.0 %	0.00006	0.03526	0.00045	0.00382	0.31233	612.5 ± 2.5	94.89	6.39	0.061 ± 0.007
13	17.0 %	0.00006	0.03185	0.00049	0.00356	0.29588	621.6 ± 2.7	94.50	5.95	0.063 ± 0.007
14	19.0 %	0.00009	0.09776	0.00117	0.00961	0.72800	573.8 ± 2.2	96.44	16.09	0.055 ± 0.006
15	22.0 %	0.00005	0.05729	0.00056	0.00475	0.36336	579.1 ± 2.5	96.17	7.95	0.046 ± 0.005
16	25.0 %	0.00002	0.01044	0.00008	0.00095	0.05505	452.9 ± 2.4	91.29	1.60	0.051 ± 0.006
Phengite 09NQ08Ph by Laser step heating, J=0.0046369, I_0=295.5, Yuka terrane										
1	4.5 %	0.00016	0.00015	0.00000	0.01240	0.98386	565.2 ± 2.1	95.52	6.28	46.9 ± 11.5
2	5.0 %	0.00014	0.00024	0.00002	0.03150	2.45386	556.3 ± 1.9	98.39	15.95	73.9 ± 13.5
3	5.5 %	0.00013	0.00043	0.00001	0.03122	2.46627	563.0 ± 2.0	98.48	15.80	40.7 ± 6.0

Table B.1 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
4	6.0 %	0.00009	0.00049	0.00000	0.02845	2.20892	554.8 ± 1.9	98.75	14.40	32.2 ± 5.1
5	6.5 %	0.00010	0.00049	0.00001	0.03530	2.71694	550.6 ± 1.9	98.97	17.87	40.1 ± 6.9
6	7.0 %	0.00009	0.00061	0.00001	0.03163	2.51138	565.6 ± 2.0	98.98	16.01	29.2 ± 3.9
7	7.5 %	0.00004	0.00021	0.00001	0.01621	1.28573	564.9 ± 2.2	99.02	8.21	44.0 ± 8.5
8	8.5 %	0.00002	0.00019	0.00001	0.00948	0.74410	560.2 ± 2.7	99.25	4.80	27.9 ± 5.0
9	10.0 %	0.00000	0.00000	0.00000	0.00136	0.10148	534.5 ± 4.8	99.48	0.69	62.8 ± 10.6
Phengite 09NQ18Ph by Laser step heating, J=0.0046086, I_0=295.5, Yuka terrane										
1	4.5 %	0.00038	0.00000	0.00000	0.00171	0.12850	536.6 ± 7.6	53.33	0.70	
2	5.0 %	0.00027	0.00000	0.00002	0.01277	0.99057	551.3 ± 2.0	92.42	5.23	
3	5.5 %	0.00013	0.00003	0.00001	0.01211	0.95887	561.3 ± 2.1	96.13	4.96	211 ± 323
4	6.0 %	0.00023	0.00000	0.00003	0.02823	2.21669	557.3 ± 2.0	97.06	11.56	475 ± 726
5	6.5 %	0.00015	0.00000	0.00002	0.02172	1.65682	543.6 ± 1.9	97.40	8.89	475 ± 726
6	7.0 %	0.00006	0.00000	0.00001	0.00942	0.75916	569.9 ± 2.0	97.88	3.86	475 ± 726
7	7.5 %	0.00014	0.00029	0.00002	0.02287	1.85560	573.1 ± 2.0	97.80	9.36	44 ± 13
8	8.0 %	0.00008	0.00012	0.00002	0.02129	1.68585	561.2 ± 2.0	98.55	8.72	103 ± 40
9	8.5 %	0.00006	0.00047	0.00002	0.01652	1.34288	574.1 ± 2.1	98.78	6.76	20 ± 3
10	9.5 %	0.00009	0.00077	0.00002	0.02183	1.74887	566.9 ± 2.0	98.46	8.94	16 ± 2
11	10.5 %	0.00006	0.00005	0.00001	0.01620	1.27146	557.1 ± 2.0	98.67	6.63	177 ± 101
12	12.0 %	0.00007	0.00041	0.00002	0.01466	1.11927	543.8 ± 2.0	98.06	6.00	20 ± 5
13	14.0 %	0.00004	0.00000	0.00001	0.01340	1.07562	568.0 ± 2.0	98.85	5.48	45 ± 11
14	15.0 %	0.00005	0.00000	0.00002	0.01978	1.53819	552.6 ± 1.9	98.99	8.10	45 ± 11
15	16.0 %	0.00003	0.00000	0.00001	0.01177	0.89796	543.6 ± 2.0	98.93	4.82	45 ± 11
Phengite 09NQ23Ph by Laser step heating, J=0.0046199, I_0=295.5, Yuka terrane										
1	4.5 %	0.00036	0.00000	0.00001	0.00501	0.36471	523.1 ± 3.2	77.19	1.96	
2	5.5 %	0.00036	0.00004	0.00002	0.02384	1.83383	548.6 ± 2.0	94.52	9.33	308 ± 306
3	6.0 %	0.00016	0.00010	0.00002	0.02668	2.07704	554.2 ± 2.0	97.74	10.44	148 ± 97
4	6.5 %	0.00018	0.00026	0.00003	0.03618	2.89280	567.1 ± 2.3	98.14	14.16	79 ± 18
5	6.8 %	0.00004	0.00009	0.00001	0.01408	1.07340	544.4 ± 1.9	98.83	5.51	83 ± 38
6	7.3 %	0.00005	0.00003	0.00001	0.00975	0.76947	560.9 ± 2.0	98.29	3.81	180 ± 237
7	8.0 %	0.00008	0.00004	0.00001	0.01372	1.08812	563.3 ± 2.0	97.83	5.37	173 ± 217
8	9.0 %	0.00009	0.00021	0.00001	0.01966	1.55757	562.7 ± 2.0	98.36	7.69	52 ± 15
9	10.0 %	0.00008	0.00021	0.00002	0.03168	2.49951	560.6 ± 2.0	99.03	12.40	83 ± 21
10	11.0 %	0.00011	0.00037	0.00002	0.02744	2.00776	525.4 ± 1.9	98.43	10.74	42 ± 9
11	12.0 %	0.00009	0.00035	0.00002	0.03388	2.65853	558.0 ± 2.0	99.03	13.26	54 ± 13
12	13.0 %	0.00004	0.00020	0.00001	0.01367	1.08803	564.8 ± 2.0	98.84	5.35	38 ± 10
K-feldspar 09NQ24Kfs by Laser step heating, J=0.0046374, I_0=295.5, Yuka terrane										
1	4.2 %	0.00017	0.00020	0.00001	0.00297	0.27411	643.1 ± 3.0	84.30	0.40	9 ± 2
2	4.7 %	0.00023	0.00039	0.00002	0.01699	0.70834	319.0 ± 1.3	91.17	2.31	25 ± 5
3	5.0 %	0.00022	0.00037	0.00000	0.04425	1.47923	260.0 ± 1.0	95.70	6.01	67 ± 11
4	5.3 %	0.00019	0.00033	0.00000	0.06967	2.35110	262.3 ± 1.0	97.62	9.47	119 ± 34
5	5.6 %	0.00014	0.00039	0.00000	0.05617	1.93445	267.3 ± 1.0	97.92	7.63	81 ± 14
6	5.9 %	0.00010	0.00028	0.00000	0.06104	2.12723	270.3 ± 1.0	98.61	8.29	120 ± 26
7	6.2 %	0.00007	0.00013	0.00000	0.04634	1.61475	270.2 ± 1.0	98.67	6.30	194 ± 59
8	6.5 %	0.00003	0.00007	0.00000	0.00919	0.32591	274.7 ± 1.3	97.74	1.25	79 ± 40
9	7.0 %	0.00004	0.00008	0.00000	0.02182	0.79879	282.8 ± 1.2	98.56	2.97	161 ± 66
10	8.0 %	0.00007	0.00021	0.00000	0.04917	1.79938	282.8 ± 1.1	98.81	6.68	131 ± 30

Table B.1 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
11	9.0 %	0.00011	0.00043	0.00000	0.09065	3.31900	282.9 ± 1.1	99.06	12.32	118 ± 15
12	9.5 %	0.00006	0.00016	0.00000	0.04124	1.50602	282.3 ± 1.2	98.90	5.60	141 ± 36
13	10.5 %	0.00013	0.00025	0.00001	0.07148	2.61147	282.3 ± 1.1	98.54	9.71	160 ± 31
14	12.0 %	0.00013	0.00025	0.00000	0.06890	2.52356	283.0 ± 1.1	98.48	9.36	152 ± 31
15	13.5 %	0.00005	0.00020	0.00000	0.02730	1.00160	283.4 ± 1.1	98.47	3.71	78 ± 20
16	15.0 %	0.00002	0.00020	0.00001	0.05241	1.92225	283.4 ± 1.1	99.63	7.12	146 ± 26
17	16.0 %	0.00000	0.00007	0.00000	0.00634	0.23242	283.1 ± 1.4	99.74	0.86	51 ± 48
K-feldspar 09NQ49Kfs by Laser step heating, *J*=0.0046579, I_0=295.5, Xitieshan terrane										
1	5.0 %	0.00021	0.00180	0.00002	0.02390	0.88106	285.9 ± 1.1	93.26	3.84	7.4 ± 0.9
2	5.5 %	0.00031	0.00107	0.00006	0.05812	2.22475	296.0 ± 1.2	96.09	9.35	30.5 ± 3.7
3	6.0 %	0.00029	0.00092	0.00007	0.08097	3.16931	302.1 ± 1.2	97.37	13.02	49.4 ± 6.0
4	6.5 %	0.00009	0.00057	0.00005	0.04795	1.87636	302.1 ± 1.4	98.61	7.71	46.8 ± 5.9
5	7.0 %	0.00011	0.00064	0.00004	0.05051	1.98001	302.6 ± 1.2	98.39	8.12	44.1 ± 6.9
6	7.5 %	0.00012	0.00109	0.00002	0.05402	2.17235	309.7 ± 1.5	98.37	8.69	27.9 ± 3.4
7	8.0 %	0.00009	0.00067	0.00007	0.05609	2.23187	306.7 ± 1.1	98.82	9.02	46.6 ± 6.6
8	8.5 %	0.00019	0.00108	0.00010	0.07410	2.85474	297.8 ± 1.1	98.03	11.92	38.3 ± 7.8
9	9.0 %	0.00007	0.00028	0.00001	0.03677	1.46644	307.4 ± 1.2	98.61	5.91	73.9 ± 12.0
10	11.0 %	0.00011	0.00019	0.00005	0.04323	1.72291	307.2 ± 1.2	98.08	6.95	127.8 ± 26.6
11	13.0 %	0.00001	0.00000	0.00001	0.00938	0.37257	306.2 ± 1.7	98.84	1.51	242.9 ± 42.7
12	15.0 %	0.00001	0.00000	0.00000	0.00272	0.10819	306.6 ± 1.8	97.80	0.44	241.9 ± 42.7
K-feldspar 09NQ51Kfs by Laser step heating, *J*=0.0.0046567, I_0=295.5, Xitieshan terrane										
1	4.0 %	0.00012	0.00000	0.00000	0.00234	0.08446	280.8 ± 2.5	70.48	0.41	
2	4.5 %	0.00035	0.00065	0.00002	0.04134	1.49843	281.4 ± 1.1	93.60	7.26	35.7 ± 4.8
3	5.0 %	0.00043	0.00092	0.00002	0.07237	2.61347	280.4 ± 1.1	95.31	12.71	44.0 ± 6.8
4	5.5 %	0.00063	0.00267	0.00003	0.12938	5.13924	306.2 ± 1.1	96.51	22.72	27.2 ± 3.4
5	5.8 %	0.00016	0.00172	0.00004	0.05354	2.12278	305.7 ± 1.2	97.78	9.40	17.4 ± 2.4
6	6.2 %	0.00011	0.00152	0.00005	0.04886	1.99631	314.2 ± 1.2	98.44	8.58	18.1 ± 2.2
7	7.0 %	0.00013	0.00093	0.00005	0.07021	2.93127	320.5 ± 1.3	98.70	12.33	42.1 ± 5.8
8	7.5 %	0.00008	0.00054	0.00003	0.04418	1.84233	320.2 ± 1.3	98.67	7.76	46.1 ± 8.0
9	8.0 %	0.00005	0.00043	0.00000	0.03403	1.42123	320.6 ± 1.2	98.96	5.97	44.4 ± 5.9
10	8.5 %	0.00001	0.00006	0.00001	0.01131	0.47124	320.0 ± 1.6	99.26	1.98	102.3 ± 65.6
11	10.5 %	0.00004	0.00029	0.00000	0.02563	1.07120	320.8 ± 1.5	98.84	4.50	49.0 ± 8.4
12	14.0 %	0.00005	0.00051	0.00000	0.03637	1.52084	321.0 ± 1.3	98.93	6.39	39.7 ± 5.2
K-feldspar 09NQ52Kfs by Laser step heating, *J*=0.0046579, I_0=295.5, Xitieshan terrane										
1	5.0 %	0.00065	0.00208	0.00006	0.05267	1.84575	272.5 ± 1.2	90.59	7.59	14.2 ± 1.7
2	5.3 %	0.00020	0.00233	0.00005	0.04618	1.60857	271.0 ± 1.3	96.37	6.65	11.1 ± 1.4
3	5.6 %	0.00042	0.00309	0.00005	0.09824	3.62784	286.1 ± 1.1	96.65	14.15	17.8 ± 2.1
4	5.9 %	0.00024	0.00085	0.00005	0.07985	2.92498	283.9 ± 1.1	97.64	11.50	52.9 ± 7.2
5	6.2 %	0.00017	0.00062	0.00004	0.05210	1.97094	292.5 ± 1.1	97.52	7.50	46.8 ± 8.7
6	6.7 %	0.00023	0.00097	0.00006	0.07085	2.66150	290.6 ± 1.1	97.48	10.21	41.1 ± 5.4
7	7.2 %	0.00018	0.00021	0.00006	0.05953	2.32544	301.3 ± 1.2	97.76	8.58	161.2 ± 48.6
8	7.7 %	0.00015	0.00012	0.00005	0.05640	2.20831	302.0 ± 1.1	97.97	8.12	263.0 ± 81.0
9	8.2 %	0.00008	0.00009	0.00003	0.03487	1.36318	301.5 ± 1.1	98.26	5.02	219.5 ± 107.6
10	9.8 %	0.00005	0.00010	0.00002	0.02521	1.03095	314.2 ± 1.2	98.70	3.63	135.4 ± 64.5
11	13.0 %	0.00018	0.00026	0.00005	0.03651	1.49569	314.8 ± 1.4	96.61	5.26	79.6 ± 17.3
12	15.0 %	0.00003	0.00011	0.00001	0.01134	0.46427	314.5 ± 1.3	98.34	1.63	57.3 ± 22.2

Table B.1 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^*$	Age ± 2σ (Ma)	$^{40}Ar^*$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
K-feldspar 09NQ55Kfs by Laser step heating, J=0.0.0046476, I_0=295.5, Xitieshan terrane										
1	5.3 %	0.00059	0.00124	0.00004	0.11685	3.94789	263.1 ± 1.0	95.74	18.77	52.8 ± 6.1
2	5.6 %	0.00013	0.00037	0.00002	0.05140	1.76554	267.2 ± 1.0	97.88	8.25	77.9 ± 11.7
3	6.0 %	0.00016	0.00043	0.00002	0.05719	2.02280	274.6 ± 1.0	97.68	9.19	75.3 ± 10.0
4	6.5 %	0.00016	0.00038	0.00002	0.06521	2.36085	280.5 ± 1.1	98.04	10.47	96.8 ± 11.9
5	7.5 %	0.00014	0.00049	0.00003	0.06159	2.34678	294.1 ± 1.1	98.29	9.89	70.5 ± 9.8
6	8.0 %	0.00007	0.00034	0.00000	0.03386	1.29148	294.5 ± 1.2	98.44	5.44	56.3 ± 11.2
7	8.5 %	0.00005	0.00011	0.00000	0.02248	0.85682	294.2 ± 1.2	98.17	3.61	114.0 ± 41.1
8	9.0 %	0.00005	0.00017	0.00001	0.02212	0.84362	294.4 ± 1.1	98.36	3.55	74.4 ± 18.7
9	11.0 %	0.00015	0.00047	0.00004	0.03487	1.33198	294.8 ± 1.1	96.69	5.60	41.8 ± 5.4
10	13.0 %	0.00011	0.00023	0.00003	0.03350	1.27567	294.0 ± 1.2	97.46	5.38	80.7 ± 13.4

Table B.2

Note: These $^{40}Ar/^{39}Ar$ experiments were measured using an MAP215-50 mass spectrometer in VU University Amsterdam. The MAP-215-50 had been fitted with a SEV-217 electron multiplier with the amplifier equipped with three resistors of 10^9, 10^8 and 10^7 Ω that automatically switch by the computer according to the ^{40}Ar signal intensities during peak-centering on the gas before analysis. Laser step heating was achieved with a 50W Synrad 48-5 series CO_2 laser, using a Raylase industrial scan head as a beam diffuser by application of a triangular current on the y-axis motor drive of the scan head. The argon isotopes are listed in **volt**. Data marked with "" were included in the calculations for the plateau ages isochron ages.

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^*$	Age ± 2σ (Ma)	$^{40}Ar^*$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
Amphibole 09NQ13Amp by Laser step heating, J=0.00503716, I_0=295.5, Yuka terrane										
1	0.24 W	0.01271	0.77100	0.00075	0.13179	18.65991	971.2 ± 3.9	83.25	0.50	0.074 ± 0.015
2	0.30 W	0.01473	2.18045	0.00202	0.48767	49.57069	745.9 ± 2.1	91.93	1.86	0.096 ± 0.020
3	0.35 W	0.01726	7.00691	0.00492	1.30289	105.09927	615.2 ± 1.4	95.37	4.97	0.080 ± 0.014
4	0.39 W	0.00863	10.77363	0.00487	1.61483	121.76906	580.8 ± 3.4	97.95	6.16	0.064 ± 0.011
5	0.42 W	0.00838	11.19405	0.00574	2.06223	147.67014	555.6 ± 3.2	98.35	7.87	0.079 ± 0.019
6	0.45 W	0.00782	15.20468	0.00693	2.27998	159.24214	543.8 ± 1.6	98.57	8.70	0.064 ± 0.013
7	0.48 W	0.00752	16.54028	0.00631	2.06244	145.23537	547.7 ± 3.0	98.49	7.87	0.054 ± 0.013
8	0.52 W	0.00661	14.71267	0.00730	2.17321	149.47846	536.7 ± 1.4	98.71	8.30	0.064 ± 0.012
9	0.56 W	0.00580	13.12185	0.00693	2.18455	146.33967	524.5 ± 1.7	98.84	8.34	0.072 ± 0.013
10	0.60 W	0.00491	11.74885	0.00555	1.80823	122.58524	530.0 ± 1.7	98.83	6.90	0.066 ± 0.015
11	0.65 W	0.00312	10.07827	0.00596	1.79966	116.89171	510.6 ± 2.1	99.22	6.87	0.077 ± 0.013
12	0.70 W	0.00586	9.50395	0.00604	1.82434	126.39313	540.1 ± 1.9	98.65	6.96	0.083 ± 0.027
13	0.75 W	0.00274	6.95085	0.00436	1.31912	86.78328	516.4 ± 2.2	99.08	5.04	0.082 ± 0.014
14	0.85 W	0.00199	5.40772	0.00323	0.88362	58.90133	522.3 ± 3.9	99.01	3.37	0.070 ± 0.013
15	1.00 W	0.00314	7.04010	0.00401	1.21125	81.52415	526.7 ± 3.0	98.87	4.62	0.074 ± 0.013
16	1.30 W	0.00440	13.81390	0.00682	1.93766	128.95845	521.6 ± 2.7	99.00	7.40	0.060 ± 0.011
17	1.60 W	0.00185	7.69476	0.00347	1.11089	71.55103	506.9 ± 1.8	99.24	4.24	0.062 ± 0.011

Table B.2 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
Amphibole 09NQ29Amp by Laser step heating, *J*=0.00500304, I0=295.5, Yuka terrane										
1	0.24 W	0.02620	0.24402	0.00048	0.04920	21.32703	2080.7 ± 5.1	73.37	0.38	0.087 ± 0.039
2	0.30 W	0.01825	0.75430	0.00116	0.12208	29.23359	1420.9 ± 4.5	84.42	0.95	0.070 ± 0.018
3	0.35 W	0.01785	2.67764	0.00158	0.32813	40.18434	862.2 ± 2.0	88.39	2.55	0.053 ± 0.006
4	0.39 W	0.01097	5.04100	0.00093	0.57136	46.54618	616.8 ± 4.3	93.49	4.44	0.049 ± 0.005
5	0.42 W	0.01224	8.73001	0.00085	0.62840	51.85354	623.5 ± 4.7	93.48	4.88	0.031 ± 0.003
6	0.45 W	0.01171	9.31152	0.00067	0.66866	54.02856	612.5 ± 1.1	93.98	5.19	0.031 ± 0.003
7	0.48 W	0.01697	12.43566	0.00015	0.80794	68.55553	638.3 ± 3.1	93.18	6.28	0.028 ± 0.002
8	0.52 W	0.01476	12.39402	0.00068	0.77396	63.54713	620.9 ± 1.5	93.58	6.01	0.027 ± 0.002
9	0.56 W	0.01133	9.46550	0.00086	0.71198	55.87724	597.5 ± 1.6	94.35	5.53	0.032 ± 0.003
10	0.60 W	0.01283	11.13250	0.00078	0.72115	58.25723	612.4 ± 1.8	93.89	5.60	0.028 ± 0.002
11	0.65 W	0.01133	11.75444	0.00115	0.76837	59.40788	590.0 ± 1.8	94.66	5.97	0.028 ± 0.002
12	0.70 W	0.01757	13.55411	0.00117	0.82378	69.94122	638.7 ± 1.2	93.09	6.40	0.026 ± 0.002
13	0.75 W	0.01388	14.31884	0.00165	0.82661	65.37949	601.5 ± 1.8	94.10	6.42	0.025 ± 0.002
14	0.85 W	0.03071	22.75454	0.00146	1.29960	114.01425	656.5 ± 2.1	92.63	10.09	0.025 ± 0.002
15	1.00 W	0.01848	17.63545	0.00207	0.98310	80.13694	617.1 ± 2.2	93.62	7.64	0.024 ± 0.002
16	1.30 W	0.03392	28.41087	0.00352	1.68413	139.99606	627.4 ± 1.7	93.32	13.08	0.025 ± 0.002
17	1.60 W	0.01417	17.56519	0.00135	1.10623	82.73088	573.4 ± 2.5	95.18	8.59	0.027 ± 0.002
Amphibole 09NQ43Amp by Laser step heating, *J*=0.004977, I0=295.5, Xitieshan terrane										
1	0.13 W	0.08094	0.00993	0.00102	0.00615	20.14245	5142.6 ± 78.7	45.72	0.02	0.266 ± 7.566
2	0.20 W	0.16299	0.26341	0.00208	0.09755	50.42605	2297.1 ± 13.8	51.15	0.25	0.159 ± 0.149
3	0.24 W	0.06637	1.38656	0.00117	0.21828	24.62213	803.9 ± 6.3	55.66	0.56	0.068 ± 0.013
4	0.30 W	0.05759	1.63252	0.00134	0.40113	31.90610	601.7 ± 11.8	65.22	1.03	0.106 ± 0.019
5	0.35 W	0.06027	3.05898	0.00297	0.80524	54.29761	522.1 ± 1.9	75.30	2.07	0.113 ± 0.023
6	0.39 W	0.04655	6.64992	0.00373	1.38227	81.55418	464.5 ± 4.0	85.57	3.56	0.089 ± 0.016
7	0.42 W	0.03849	14.20725	0.00768	2.07562	122.80167	465.6 ± 3.4	91.52	5.34	0.063 ± 0.017
8	0.45 W	0.03572	15.57670	0.01081	3.17665	179.61953	447.4 ± 1.4	94.45	8.18	0.088 ± 0.017
9	0.48 W	0.03078	17.85652	0.01188	3.16177	178.38450	446.5 ± 2.1	95.15	8.14	0.076 ± 0.014
10	0.52 W	0.02375	15.48775	0.01246	3.23333	179.87887	441.0 ± 1.4	96.24	8.32	0.090 ± 0.016
11	0.56 W	0.01451	12.52912	0.01048	2.52970	137.54426	432.1 ± 1.4	96.97	6.51	0.087 ± 0.016
12	0.60 W	0.02370	16.70479	0.01112	2.79955	156.60335	443.1 ± 1.6	95.72	7.21	0.072 ± 0.016
13	0.65 W	0.01654	15.75162	0.01212	2.92381	160.14574	434.9 ± 1.4	97.04	7.53	0.080 ± 0.015
14	0.70 W	0.01851	15.46586	0.01317	3.12257	171.19002	435.3 ± 1.5	96.90	8.04	0.087 ± 0.022
15	0.75 W	0.01166	12.39358	0.01162	2.97968	159.58791	426.3 ± 1.8	97.89	7.67	0.103 ± 0.028
16	0.85 W	0.01335	16.28687	0.01202	2.78637	151.25375	431.4 ± 1.7	97.46	7.17	0.074 ± 0.014
17	1.00 W	0.01005	10.05033	0.00837	2.19382	109.93734	401.7 ± 1.8	97.37	5.65	0.094 ± 0.018
18	1.30 W	0.01203	13.42065	0.01003	3.08570	153.90867	400.0 ± 1.8	97.74	7.94	0.099 ± 0.017
19	1.60 W	0.00348	7.66760	0.00480	1.87359	85.57234	369.5 ± 1.0	98.81	4.82	0.105 ± 0.018
Amphibole 09NQ44Amp by Laser step heating, *J*=0.00494991, I_0=295.5, Xitieshan terrane										
1	0.13 W	0.09946	0.56558	0.00059	0.00129	6.91343	5974.3 ± 462	19.04	0.01	0.001 ± 0.001
2	0.20 W	0.15098	0.66085	0.00714	0.06423	24.53982	1915.4 ± 40.4	35.49	0.39	0.042 ± 0.047
3	0.24 W	0.06944	0.67164	0.00688	0.12751	16.60234	897.4 ± 20.2	44.73	0.78	0.082 ± 0.093
4	0.30 W	0.06577	3.66901	0.00535	0.45310	33.65178	564.8 ± 12.3	63.39	2.78	0.053 ± 0.011
5	0.35 W	0.03266	6.88260	0.00481	0.82023	57.19962	535.0 ± 2.4	85.56	5.02	0.051 ± 0.009
6	0.39 W	0.02812	10.23114	0.00370	1.09021	69.31852	493.7 ± 4.9	89.29	6.68	0.046 ± 0.008
7	0.42 W	0.02264	10.14252	0.00259	1.05472	66.05298	487.1 ± 6.0	90.80	6.46	0.045 ± 0.008

Table B.2 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
8	0.45 W	0.02039	13.61214	0.00304	1.26234	76.70240	474.4 ± 2.1	92.71	7.73	0.040 ± 0.007
9	0.48 W	0.01736	12.64059	0.00290	1.25104	74.53044	466.2 ± 4.2	93.56	7.66	0.043 ± 0.007
10	0.52 W	0.01931	13.12484	0.00284	1.29376	78.31764	472.8 ± 1.8	93.21	7.92	0.042 ± 0.007
11	0.56 W	0.01395	11.36006	0.00266	1.16514	68.33137	459.8 ± 2.0	94.31	7.14	0.044 ± 0.008
12	0.60 W	0.01180	10.13406	0.00205	0.99640	57.73443	454.9 ± 2.2	94.30	6.10	0.042 ± 0.007
13	0.65 W	0.01465	11.51676	0.00257	1.15797	67.95547	460.1 ± 2.5	94.01	7.09	0.043 ± 0.007
14	0.70 W	0.00909	8.84118	0.00266	0.95756	54.96251	451.1 ± 2.4	95.34	5.86	0.047 ± 0.008
15	0.75 W	0.00408	6.51136	0.00211	0.71627	39.98106	440.1 ± 4.4	97.07	4.39	0.047 ± 0.009
16	0.85 W	0.01099	8.68519	0.00229	0.86568	50.52915	457.9 ± 4.6	93.96	5.30	0.043 ± 0.007
17	1.00 W	0.00703	8.68087	0.00206	0.82409	46.56593	444.9 ± 4.3	95.73	5.05	0.041 ± 0.007
18	1.30 W	0.01053	13.39826	0.00362	1.40009	78.77461	443.2 ± 3.2	96.20	8.58	0.045 ± 0.008
19	1.60 W	0.00656	6.25631	0.00124	0.82563	38.91353	378.3 ± 1.5	95.25	5.06	0.057 ± 0.010
	Amphibole 09NQ50Amp by Laser step heating, J= 0.0048814, I_0=295.5, Xitieshan terrane									
1	0.24 W	0.02404	1.21157	0.00144	0.42090	28.18498	510.2 ± 3.2	79.87	1.19	0.149 ± 0.035
2	0.30 W	0.03268	2.95333	0.00300	0.93855	62.41635	507.2 ± 1.5	86.60	2.65	0.137 ± 0.024
3	0.35 W	0.02397	8.48352	0.00333	1.83885	116.26043	485.3 ± 1.5	94.26	5.18	0.093 ± 0.019
4	0.39 W	0.02083	18.08858	0.00635	3.25407	202.53606	478.6 ± 1.3	97.05	9.17	0.077 ± 0.014
5	0.42 W	0.01349	11.14353	0.00552	2.89813	172.55495	460.3 ± 1.5	97.74	8.17	0.112 ± 0.030
6	0.45 W	0.01331	15.75158	0.00661	3.45891	205.68445	459.8 ± 2.2	98.12	9.75	0.094 ± 0.019
7	0.48 W	0.00946	15.47229	0.00648	3.34841	190.05365	441.2 ± 1.3	98.55	9.44	0.093 ± 0.020
8	0.52 W	0.01218	15.84768	0.00453	3.35669	180.13048	419.7 ± 2.4	98.04	9.46	0.091 ± 0.020
9	0.56 W	0.00397	14.75928	0.00482	2.45070	131.42943	419.5 ± 1.6	99.11	6.91	0.071 ± 0.017
10	0.60 W	0.00670	11.72678	0.00426	2.48402	133.16977	419.4 ± 1.4	98.53	7.00	0.091 ± 0.021
11	0.65 W	0.00346	11.03969	0.00512	2.35106	126.15237	419.7 ± 1.2	99.20	6.63	0.092 ± 0.021
12	0.70 W	0.00163	6.52418	0.00327	1.69901	91.03790	419.2 ± 1.2	99.47	4.79	0.112 ± 0.020
13	0.75 W	0.00155	4.67232	0.00276	1.22964	65.93532	419.4 ± 1.4	99.31	3.47	0.113 ± 0.021
14	0.85 W	0.00196	5.96096	0.00342	1.63684	87.71368	419.2 ± 1.5	99.34	4.61	0.118 ± 0.023
15	1.00 W	0.00075	3.94259	0.00181	1.12948	60.51728	419.2 ± 2.0	99.63	3.18	0.123 ± 0.025
16	1.30 W	0.00137	4.77994	0.00266	1.46602	75.32433	403.7 ± 1.9	99.47	4.13	0.132 ± 0.025
17	1.60 W	0.00084	4.27954	0.00256	1.50802	75.28778	393.5 ± 2.4	99.67	4.25	0.152 ± 0.030
	Amphibole 09NQ55Amp by Laser step heating, J=0.0048508, I_0=295.5, Xitieshan terrane									
1	0.20 W	0.02444	0.50732	0.00193	0.39224	30.95435	584.7 ± 4.4	81.08	1.01	0.332 ± 0.172
2	0.24 W	0.01997	0.84649	0.00165	0.67920	40.56003	458.9 ± 2.0	87.30	1.74	0.345 ± 0.106
3	0.30 W	0.02071	4.37098	0.00342	1.98454	110.01950	429.7 ± 0.9	94.73	5.10	0.195 ± 0.040
4	0.35 W	0.01829	7.49643	0.00511	2.86465	154.68440	419.7 ± 1.2	96.62	7.36	0.164 ± 0.044
5	0.39 W	0.01093	15.13923	0.00495	4.20770	227.36744	420.0 ± 1.2	98.60	10.81	0.120 ± 0.026
6	0.42 W	0.01043	10.56020	0.00987	3.85971	208.28942	419.5 ± 1.6	98.54	9.91	0.157 ± 0.038
7	0.45 W	0.00857	15.66078	0.01105	3.63522	196.65032	420.4 ± 1.7	98.73	9.34	0.100 ± 0.022
8	0.48 W	0.00982	13.84672	0.01156	3.95252	213.60516	420.0 ± 1.7	98.66	10.15	0.123 ± 0.024
9	0.52 W	0.00867	10.24475	0.01007	3.29241	177.89467	419.9 ± 1.3	98.58	8.46	0.138 ± 0.034
10	0.56 W	0.00855	10.02826	0.00943	2.83444	152.82146	419.1 ± 1.6	98.37	7.28	0.122 ± 0.032
11	0.60 W	0.00410	8.21630	0.00730	2.10077	113.31365	419.3 ± 1.1	98.94	5.40	0.110 ± 0.019
12	0.65 W	0.00273	5.23356	0.00587	1.55187	83.89689	420.2 ± 1.2	99.05	3.99	0.128 ± 0.023
13	0.70 W	0.00250	5.14993	0.00467	1.37447	74.42463	420.7 ± 1.1	99.02	3.53	0.115 ± 0.022
14	0.75 W	0.00139	3.25079	0.00353	0.97840	52.60549	418.1 ± 1.2	99.23	2.51	0.129 ± 0.029

Table B.2 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
15	0.85 W	0.00169	3.96605	0.00453	1.30369	70.42837	419.9 ± 2.0	99.29	3.35	0.141 ± 0.025
16	1.00 W	0.00084	1.63201	0.00243	0.68495	37.03661	420.2 ± 1.9	99.33	1.76	0.180 ± 0.058
17	1.30 W	0.00131	4.21179	0.00444	1.35719	73.28420	419.7 ± 2.4	99.47	3.49	0.139 ± 0.026
18	1.60 W	0.00110	4.18951	0.00365	1.10944	60.00177	420.3 ± 1.1	99.46	2.85	0.114 ± 0.023
19	2.00 W	0.00083	2.38917	0.00229	0.77155	41.63806	419.5 ± 1.7	99.42	1.98	0.139 ± 0.034
Muscovite 09NQ12Ms by Laser step heating, J=0.00523279, I_0=295.5, Yuka terrane										
1	0.10 W	0.00610	0.00076	0.00007	0.27400	13.66170	418.2 ± 1.1	88.34	1.40	155 ± 117
2	0.14 W	0.00964	0.00260	0.00000	1.88524	94.18029	419.0 ± 1.2	97.06	9.63	311 ± 233
3	0.18 W	0.01088	0.00387	0.00000	4.19253	209.60375	419.2 ± 1.7	98.49	21.41	466 ± 576
4	0.20 W	0.00402	0.00396	0.00000	4.87584	243.60513	419.0 ± 1.8	99.51	24.90	529 ± 383
5	0.22 W	0.00246	0.00373	0.00000	3.83895	191.84905	419.1 ± 1.3	99.62	19.61	442 ± 702
6	0.25 W	0.00111	0.00064	0.00000	2.07840	103.83800	419.0 ± 1.4	99.68	10.62	1391 ± 1536
7	0.27 W	0.00064	0.00057	0.00016	0.56510	28.18157	418.3 ± 1.8	99.33	2.89	426 ± 621
8	0.28 W	0.00063	0.00287	0.00008	0.21945	10.81108	413.8 ± 3.0	98.30	1.12	33 ± 24
9	0.29 W	0.00031	0.00047	0.00017	0.13272	6.61773	418.3 ± 6.3	98.62	0.68	121 ± 213
10	0.30 W	0.00016	0.00034	0.00011	0.09921	4.94007	417.7 ± 5.8	99.05	0.51	124 ± 179
11	0.31 W	0.00030	0.00074	0.00005	0.11293	5.58980	415.5 ± 1.8	98.43	0.58	66 ± 56
12	0.33 W	0.00010	0.00032	0.00003	0.10916	5.44304	418.3 ± 5.7	99.44	0.56	148 ± 269
13	0.38 W	0.00025	0.00048	0.00009	0.16242	8.07797	417.3 ± 1.8	99.11	0.83	145 ± 127
14	0.45 W	0.00073	0.00130	0.00020	0.45432	22.65669	418.3 ± 1.5	99.06	2.32	150 ± 93
15	0.50 W	0.00034	0.00148	0.00009	0.38966	19.34004	416.5 ± 1.3	99.48	1.99	114 ± 79
16	0.51 W	0.00027	0.00035	0.00000	0.18910	9.41217	417.6 ± 4.4	99.15	0.97	235 ± 452
Phengite 09NQ20Ph by Laser step heating, J=0.0052015, I_0=295.5, Yuka terrane										
1	0.10 W	0.00125	0.00004	0.00003	0.05732	4.95976	670.4 ± 5.6	93.08	0.19	583 ± 4917
2	0.14 W	0.00571	0.00029	0.00010	0.28431	27.91989	744.4 ± 2.9	94.30	0.94	428 ± 1513
3	0.18 W	0.01245	0.00272	0.00000	1.71438	165.48887	734.0 ± 2.2	97.82	5.68	271 ± 651
4	0.20 W	0.00762	0.00346	0.00000	2.86568	255.27094	686.9 ± 2.2	99.13	9.50	356 ± 481
5	0.22 W	0.00577	0.00000	0.00000	3.71286	353.25123	725.3 ± 1.5	99.52	12.30	713 ± 1235
6	0.25 W	0.00839	0.00526	0.00000	2.50854	233.82420	713.2 ± 1.8	98.95	8.31	205 ± 181
7	0.27 W	0.00630	0.00000	0.00000	3.90676	372.97078	727.4 ± 1.8	99.50	12.94	117 ± 27
8	0.28 W	0.00393	0.00088	0.00000	2.60199	238.74304	703.9 ± 2.9	99.52	8.62	1276 ± 5695
9	0.29 W	0.00325	0.00000	0.00000	2.15562	199.47920	708.9 ± 1.7	99.52	7.14	209 ± 54
10	0.30 W	0.00331	0.00000	0.00000	2.43822	217.10033	686.6 ± 1.5	99.55	8.08	1 ± 2
11	0.31 W	0.00210	0.00239	0.00000	1.65982	147.08831	683.9 ± 2.1	99.58	5.50	299 ± 641
12	0.33 W	0.00206	0.00015	0.00000	1.53829	137.51747	688.9 ± 2.0	99.56	5.10	4389 ± 1506
13	0.38 W	0.00223	0.00028	0.00000	2.02959	170.43185	653.8 ± 1.6	99.61	6.72	3170 ± 4286
14	0.45 W	0.00284	0.00077	0.00000	1.79982	171.97639	727.9 ± 1.3	99.51	5.96	1011 ± 4796
15	0.50 W	0.00156	0.00164	0.00000	0.77864	80.02290	772.6 ± 1.6	99.43	2.58	204 ± 214
16	0.51 W	0.00027	0.00102	0.00008	0.12880	13.74515	796.5 ± 2.8	99.42	0.43	54 ± 84
Muscovite 09NQ24Ms by Laser step heating, J=0.00512272, I_0=295.5, Yuka terrane										
1	0.14 W	0.00389	0.00032	0.00025	0.26146	13.33112	418.7 ± 3.0	92.07	0.82	347 ± 534
2	0.18 W	0.00745	0.00131	0.00037	0.96589	52.79651	445.4 ± 1.7	95.99	3.05	317 ± 141
3	0.20 W	0.00512	0.00024	0.00015	1.68919	93.45561	450.2 ± 1.1	98.41	5.33	3033 ± 19241
4	0.22 W	0.00563	0.00058	0.00019	2.19140	122.86126	455.5 ± 1.5	98.66	6.91	1612 ± 11865
5	0.25 W	0.00882	0.00048	0.00000	3.65630	204.33367	454.2 ± 1.5	98.74	11.53	3277 ± 21160
6	0.27 W	0.00519	0.00463	0.00000	4.74886	266.23511	455.5 ± 1.0	99.43	14.98	441 ± 455
7	0.28 W	0.00182	0.00450	0.00000	3.89936	217.82612	454.0 ± 1.1	99.75	12.30	373 ± 430

Table B.2 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
8	0.29 W	0.00131	0.00000	0.00000	2.51692	140.64226	454.1 ± 1.5	99.72	7.94	1 ± 1
9	0.30 W	0.00063	0.00052	0.00000	1.58210	88.45229	454.4 ± 1.1	99.79	4.99	1299 ± 2061
10	0.31 W	0.00053	0.00192	0.00000	1.26505	70.66067	454.0 ± 1.2	99.78	3.99	284 ± 132
11	0.33 W	0.00058	0.00090	0.00000	1.25347	70.08929	454.4 ± 1.2	99.75	3.95	598 ± 1248
12	0.38 W	0.00057	0.00073	0.00000	1.36710	76.57988	455.1 ± 1.3	99.78	4.31	800 ± 1118
13	0.45 W	0.00093	0.00125	0.00000	2.81139	157.89090	456.2 ± 1.6	99.82	8.87	964 ± 2449
14	0.50 W	0.00058	0.00150	0.00000	2.26548	127.10372	455.8 ± 1.5	99.86	7.15	649 ± 1773
15	0.51 W	0.00037	0.00000	0.00000	1.22924	69.17553	457.0 ± 1.0	99.84	3.88	2 ± 6
Muscovite 09NQ51Ms by Laser step heating, J=0.0051718, I_0=295.5, Xitieshan terrane										
1	0.14 W	0.00557	0.00038	0.00029	0.87544	43.72036	414.5 ± 1.6	96.37	3.87	1002 ± 1873
2	0.18 W	0.00807	0.00861	0.00000	2.54644	125.22986	408.8 ± 1.2	98.13	11.26	127 ± 67
3	0.20 W	0.00750	0.00495	0.00000	4.11134	201.88985	408.3 ± 1.2	98.91	18.18	357 ± 491
4	0.22 W	0.00568	0.00284	0.00000	4.75420	233.79504	408.8 ± 0.8	99.29	21.03	721 ± 739
5	0.25 W	0.00101	0.00264	0.00000	3.51008	172.68189	409.0 ± 1.1	99.83	15.52	571 ± 434
6	0.27 W	0.00321	0.00091	0.00000	1.78950	88.14230	409.4 ± 1.3	98.93	7.91	844 ± 713
7	0.28 W	0.00098	0.00065	0.00018	0.86731	42.68303	409.1 ± 0.9	99.32	3.84	571 ± 771
8	0.29 W	0.00064	0.00076	0.00033	0.55416	27.32716	409.8 ± 1.0	99.31	2.45	315 ± 311
9	0.30 W	0.00059	0.00042	0.00019	0.49792	24.53890	409.6 ± 1.0	99.30	2.20	513 ± 1382
10	0.31 W	0.00074	0.00152	0.00006	0.47343	23.27913	408.8 ± 1.2	99.07	2.09	134 ± 120
11	0.33 W	0.00043	0.00035	0.00028	0.44553	21.94569	409.4 ± 1.5	99.42	1.97	549 ± 1185
12	0.38 W	0.00050	0.00036	0.00023	0.54072	26.66719	409.9 ± 1.1	99.45	2.39	647 ± 863
13	0.45 W	0.00056	0.00048	0.00010	0.73918	36.37020	409.0 ± 1.1	99.55	3.27	659 ± 1406
14	0.50 W	0.00026	0.00078	0.00027	0.55693	27.40698	409.1 ± 1.0	99.72	2.46	306 ± 452
15	0.51 W	0.00028	0.00055	0.00006	0.34724	17.06755	408.6 ± 1.2	99.52	1.54	269 ± 524
Muscovite 09NQ52Ms by Laser step heating, J=0.00515509, I_0=295.5, Xitieshan terrane										
1	0.14 W	0.00260	0.00036	0.00012	0.20187	9.04677	375.0 ± 2.9	92.17	0.71	241 ± 597
2	0.18 W	0.00918	0.00086	0.00000	1.34819	64.82930	399.5 ± 1.1	95.98	4.77	675 ± 535
3	0.20 W	0.00568	0.00018	0.00018	2.06539	99.49049	400.1 ± 0.8	98.34	7.31	4902 ± 1889
4	0.22 W	0.00670	0.00000	0.00000	2.82642	139.10737	407.9 ± 1.0	98.60	10.01	12 ± 38
5	0.25 W	0.01127	0.00000	0.00000	4.59899	226.42220	408.0 ± 0.9	98.55	16.29	12 ± 38
6	0.27 W	0.00773	0.00253	0.00000	4.82983	237.63831	407.8 ± 1.0	99.05	17.10	822 ± 1223
7	0.28 W	0.00223	0.00239	0.00000	3.38998	166.81597	407.9 ± 0.8	99.60	12.00	609 ± 1540
8	0.29 W	0.00096	0.00000	0.00000	1.85258	91.16163	407.9 ± 0.8	99.69	6.56	2 ± 5
9	0.30 W	0.00063	0.00000	0.00000	1.12212	55.11235	407.2 ± 0.9	99.66	3.97	2 ± 5
10	0.31 W	0.00046	0.00006	0.00010	0.66723	32.79087	407.4 ± 1.1	99.59	2.36	5129 ± 1047
11	0.33 W	0.00068	0.00018	0.00000	0.77017	37.80880	407.0 ± 1.2	99.47	2.73	1812 ± 1131
12	0.38 W	0.00096	0.00000	0.00000	0.80321	39.43017	407.0 ± 1.0	99.28	2.84	4 ± 36
13	0.45 W	0.00128	0.00140	0.00000	1.54715	76.10263	407.7 ± 1.0	99.50	5.48	474 ± 306
14	0.50 W	0.00087	0.00032	0.00000	1.44028	70.92306	408.1 ± 1.0	99.64	5.10	1966 ± 6610
15	0.51 W	0.00041	0.00074	0.00000	0.77561	38.06672	406.9 ± 1.1	99.68	2.75	452 ± 575
Muscovite 09NQ55Ms by Laser step heating, J=0.00514463, I_0=295.5, Xitieshan terrane										
1	0.10 W	0.00321	0.00265	0.00010	0.33798	16.63418	407.2 ± 1.6	94.61	1.06	55 ± 15
2	0.14 W	0.00540	0.00048	0.00000	1.43158	70.48271	407.3 ± 1.2	97.79	4.49	1281 ± 1673
3	0.18 W	0.00838	0.01411	0.00000	3.39986	167.39851	407.3 ± 0.8	98.54	10.67	104 ± 89
4	0.20 W	0.00788	0.00979	0.00000	4.30256	212.18817	407.9 ± 0.8	98.91	13.50	189 ± 156
5	0.22 W	0.00851	0.00489	0.00000	5.11133	251.75187	407.5 ± 1.2	99.01	16.03	449 ± 315

Table B.2 continue

Step	Laser Power	$^{36}Ar_{air}$	$^{37}Ar_{Ca}$	$^{38}Ar_{Cl}$	$^{39}Ar_{K}$	$^{40}Ar^{*}$	Age ± 2σ (Ma)	$^{40}Ar^{*}$ (%)	$^{39}Ar_{K}$ (%)	K/Ca ± 2σ
6	0.25 W	0.00572	0.00966	0.00000	5.36711	264.73985	408.0 ± 1.6	99.36	16.84	239 ± 134
7	0.27 W	0.00220	0.00269	0.00000	3.57735	175.97565	407.0 ± 1.4	99.63	11.22	572 ± 1105
8	0.28 W	0.00049	0.00276	0.00000	2.29442	112.64278	406.3 ± 0.9	99.87	7.20	358 ± 116
9	0.29 W	0.00110	0.00100	0.00000	1.29681	63.65690	406.2 ± 1.4	99.49	4.07	556 ± 336
10	0.33 W	0.00064	0.00129	0.00000	0.86697	42.60673	406.6 ± 1.5	99.56	2.72	290 ± 231
11	0.38 W	0.00066	0.00067	0.00000	0.95628	47.07446	407.3 ± 1.3	99.59	3.00	610 ± 916
12	0.45 W	0.00106	0.00116	0.00000	1.43613	70.60627	406.8 ± 1.1	99.55	4.51	532 ± 232
13	0.50 W	0.00069	0.00119	0.00000	1.06085	52.16179	406.8 ± 1.6	99.61	3.33	382 ± 211
14	0.51 W	0.00062	0.00125	0.00003	0.43860	21.59455	407.3 ± 1.9	99.15	1.38	151 ± 154
Biotite 09NQ42Bt by Laser step heating, J=0.00518242, I_0=295.5, Xitieshan terrane										
1	0.18 W	0.00274	0.00421	0.00003	0.20655	8.93762	365.0 ± 1.7	91.70	10.95	21.1 ± 14.3
2	0.20 W	0.00119	0.00369	0.00014	0.16529	7.83611	396.3 ± 2.5	95.70	8.76	19.2 ± 11.5
3	0.24 W	0.00122	0.00120	0.00012	0.23826	11.25587	395.1 ± 1.8	96.90	12.63	85.6 ± 273.9
4	0.28 W	0.00092	0.00222	0.00000	0.26274	12.51446	398.0 ± 2.9	97.87	13.92	50.9 ± 114.2
5	0.31 W	0.00037	0.00233	0.00000	0.17707	8.34843	394.4 ± 2.3	98.70	9.38	32.6 ± 26.0
6	0.35 W	0.00039	0.00097	0.00004	0.22283	10.60499	397.7 ± 1.7	98.92	11.81	98.9 ± 334.2
7	0.39 W	0.00030	0.00176	0.00014	0.19370	9.15090	395.1 ± 2.3	99.03	10.27	47.3 ± 143.9
8	0.43 W	0.00027	0.00365	0.00010	0.12489	5.93555	397.2 ± 2.3	98.68	6.62	14.7 ± 35.4
9	0.46 W	0.00023	0.00224	0.00006	0.11613	5.52977	397.9 ± 3.4	98.78	6.15	22.3 ± 12.4
10	0.49 W	0.00016	0.00264	0.00016	0.09266	4.39616	396.6 ± 2.3	98.91	4.91	15.1 ± 27.1
11	0.53 W	0.00017	0.00302	0.00005	0.08680	4.09367	394.5 ± 3.6	98.78	4.60	12.4 ± 13.1