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Cooling and exhumation of the Shuswap Metamorphic Core Complex constrained by $^{40}Ar/^{39}Ar$ thermochronology

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The following tables provide analysis of argon isotopic composition for mineral separates from rock samples of the Shuswap MCC, British Columbia,Canada. These data and the calculated ages are discussed in the corresponding paper and the sample locations are indicated in figures of the paper.

Table DR1 : Hornblende analysis

a)

Age spectrum data: 97005 Hornblende, 125-250 µm
Amphibolite boudin in migmatitic gneisses of Mt Odin
Can ANU#29, irradiated in HIFAR for 192 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% $^{40}Ar^*$	$^{40*}Ar/^{39}Ar_K$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
800	2,546E-16	1,561E-15	3,460E-16	1,400E-13	46,4	188,3	0,13	1038	±	16,72	8,60
1000	8,332E-17	4,863E-15	8,465E-16	1,283E-13	81,2	123,6	0,44	743,6	±	4,45	11,00
1100	5,147E-17	8,801E-15	1,569E-15	3,927E-14	63,5	15,96	1,03	115,1	±	1,34	10,70
1150	7,578E-17	3,310E-14	5,183E-15	8,119E-14	76,5	12,04	2,96	87,51	±	0,56	12,20
1170	1,159E-16	1,053E-13	1,600E-14	1,933E-13	87,7	10,65	8,92	77,62	±	0,27	12,60
1185	1,028E-16	1,216E-13	1,964E-14	1,987E-13	90,8	9,229	16,24	67,46	±	0,25	11,80
1200	2,005E-16	3,310E-13	5,746E-14	5,479E-13	95,2	9,114	37,67	66,64	±	0,18	11,00
1215	2,439E-16	4,237E-13	7,659E-14	7,101E-13	95,7	8,913	66,23	65,19	±	0,18	10,60
1225	7,148E-17	1,125E-13	2,103E-14	1,916E-13	94,8	8,669	74,07	63,43	±	0,22	10,20
1235	2,929E-17	1,172E-14	2,068E-15	2,516E-14	70,2	8,580	74,85	62,80	±	1,08	10,80
1265	9,508E-17	9,764E-14	1,639E-14	1,606E-13	88,5	8,713	80,96	63,75	±	0,31	11,40
1300	1,714E-16	1,913E-13	3,315E-14	3,317E-13	90,4	9,087	93,32	66,44	±	0,26	11,00
1450	1,282E-16	1,025E-13	1,792E-14	1,932E-13	85,6	9,274	100	67,78	±	0,55	10,90
Total	1,624E-15	1,546E-12	2,682E-13	2,941E-12		9,790		71,48	±	0,29	

J= 0.004128±0.3%

$\lambda_{K40}= 5.543.10^{-10}$ a^{-1}

VG3600, Sensitivity: 4.03 x10^{-17} mol/mV

$(^{36}Ar/^{37}Ar)_{Ca}$=3.50 x10^{-4}

$(^{39}Ar/^{37}Ar)_{Ca}$=7.86 x10^{-4}

$(^{40}Ar/^{39}Ar)_K$=2.70 x10^{-2}

b)

Age spectrum data : 97019 Hornblende 250-350 μm
Amphibolite boudin in migmatitic gneiss, East of Mt Thor
Can ANU#29, irradiated in HIFAR for 192 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% ^{40}Ar*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
800	4,961E-16	5,595E-15	2,535E-15	7,289E-13	80,0	230,3	1,08	1204	±	10	4,20
1000	1,724E-16	2,440E-15	2,551E-15	1,795E-13	71,7	50,49	2,17	340,9	±	3,24	1,82
1100	1,440E-16	4,334E-14	4,359E-15	1,640E-13	76,7	29,09	4,02	204,2	±	1,76	19,00
1150	2,915E-16	1,879E-13	1,604E-14	4,381E-13	84,7	23,34	10,82	165,7	±	0,59	22,50
1170	2,262E-16	2,770E-13	2,612E-14	4,138E-13	90,6	14,47	21,89	104,5	±	0,53	20,30
1190	3,526E-16	5,752E-13	5,913E-14	7,917E-13	94,1	12,70	46,98	92,04	±	0,33	18,60
1200	1,280E-16	1,821E-13	1,997E-14	2,620E-13	92,5	12,23	55,46	88,67	±	0,49	17,50
1215	1,667E-16	2,208E-13	2,569E-14	3,264E-13	91,7	11,73	66,37	85,16	±	0,26	16,40
1230	1,155E-15	7,415E-14	8,331E-15	4,159E-13	19,7	9,92	69,90	72,25	±	3,40	17,00
1245	6,367E-17	3,491E-14	3,254E-15	5,661E-14	73,0	12,81	71,28	92,79	±	0,90	20,60
1260	8,543E-17	3,356E-14	2,924E-15	6,086E-14	64,1	13,46	72,52	97,39	±	1,56	22,00
1285	1,224E-16	1,300E-13	1,147E-14	1,683E-13	86,3	12,78	77,38	92,55	±	0,31	21,70
1310	1,848E-16	2,121E-13	1,796E-14	2,705E-13	87,7	13,34	84,99	96,54	±	0,41	22,70
1330	1,398E-16	9,548E-14	9,001E-15	1,605E-13	80,3	14,43	88,81	104,2	±	0,60	20,30
1360	1,457E-16	8,440E-14	9,045E-15	1,644E-13	79,0	14,46	92,64	104,4	±	0,86	17,90
1450	2,684E-16	1,663E-13	1,733E-14	3,152E-13	80,1	14,68	100,00	106	±	0,44	18,40
Total	4,143E-15	2,325E-12	2,357E-13	4,917E-12		16,79		120,7	±	0,72	

J= 0.00412±0.3%

λ_{K40}= $5.543.10^{-10}$ a^{-1}

VG3600, Sensitivity: 4.03×10^{-17} mol/mV

$(^{36}Ar/^{37}Ar)_{Ca}$=3.50×10^{-4}

$(^{39}Ar/^{37}Ar)_{Ca}$=7.86×10^{-4}

$(^{40}Ar/^{39}Ar)_{K}$=2.70×10^{-2}

c)

Age spectrum data: 97029 Hornblende, 350-500 mm
Amphibolitic gneiss, Mt Symonds
Can ANU#29, irradiated in HIFAR for 192 hours

Temp. (°C)	36Ar (mol)	37Ar (mol)	39Ar (mol)	40Ar (mol)	% 40Ar*	40*Ar / 39ArK	Cum. 39Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
800	7,949E-16	7,644E-15	2,174E-15	2,501E-13	6,4	7,4	1,31	54	±	4,52	6,70
1000	2,857E-16	1,274E-14	5,509E-15	1,425E-13	41,6	10,8	4,62	78,4	±	0,92	4,40
1050	6,531E-17	9,040E-15	2,939E-15	4,186E-14	55,9	07,99	6,39	58,4	±	0,83	5,86
1100	7,940E-17	2,198E-14	4,171E-15	5,517E-14	61,4	08,15	8,9	59,63	±	0,71	10,10
1120	8,720E-17	2,507E-14	3,495E-15	5,012E-14	53,6	07,73	10,99	56,55	±	0,61	13,70
1160	3,196E-16	5,142E-14	4,932E-15	1,232E-13	27,6	6,94	13,94	50,88	±	1,11	20,00
1180	5,357E-16	3,793E-14	3,438E-15	1,751E-13	11,8	6,065	16	44,55	±	2,19	21,10
1200	5,332E-17	3,867E-14	3,328E-15	3,693E-14	67,9	7,607	17,99	55,69	±	0,63	22,30
1220	1,329E-16	1,751E-13	1,533E-14	1,358E-13	84,1	7,52	27,15	55,07	±	0,3	21,90
1240	2,627E-16	3,652E-13	3,185E-14	2,781E-13	85,4	7,521	46,18	55,07	±	0,17	22,00
1255	1,725E-16	2,260E-13	1,954E-14	1,753E-13	84	7,603	57,85	55,67	±	0,21	22,20
1270	2,288E-16	3,234E-13	2,834E-14	2,541E-13	86,3	7,804	74,79	57,12	±	0,17	21,90
1285	1,307E-16	1,419E-13	1,259E-14	1,210E-13	79,9	7,748	82,32	56,71	±	0,32	21,60
1310	1,507E-16	1,790E-13	1,596E-14	1,489E-13	82,2	7,741	91,86	56,66	±	0,23	21,50
1350	1,271E-16	1,237E-13	1,112E-14	1,089E-13	77	7,605	98,51	55,68	±	0,26	21,30
1450	1,058E-16	2,468E-14	2,494E-15	6,213E-14	53,7	13,48	100	97,57	±	14,2	18,90
Total	3,532E-15	1,764E-12	1,672E-13	2,159E-12		7,8		57,08	±	0,61	

J= 0.004122±0.3%
lK40= 5.543.10-10 a-1
VG3600, Sensitivity: 4.03 x10-17 mol/mV
(36Ar/37Ar)Ca=3.50 x10-4
(39Ar/37Ar)Ca=7.86 x10-4
(40Ar/39Ar)K=2.70 x10-2

d)

Age spectrum data: 97041 Hornblende, 125-250 mm
Amphibolitic gneiss, East side of Mabel lake
Can ANU#32, irradiated in HIFAR for 140 hours

Temp. (°C)	36Ar (mol)	37Ar (mol)	39Ar (mol)	40Ar (mol)	% 40Ar*	40*Ar 39ArK	Cum. 39Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
600	5,540E-16	3,300E-16	5,340E-17	1,730E-13	5,3	171	0,04	657,6	±	787,3	11,80
750	2,450E-16	1,610E-15	3,320E-16	9,950E-14	27,4	82,4	0,26	346,8	±	28,79	9,25
900	4,000E-16	2,590E-15	7,240E-16	1,690E-13	30,3	70,9	0,76	302,3	±	10,71	6,83
1050	2,830E-16	8,640E-15	1,660E-15	1,320E-13	37,2	29,6	1,89	132,3	±	2,11	9,91
1100	1,240E-16	1,570E-14	2,110E-15	7,320E-14	52,2	18,2	3,32	82,51	±	0,8	14,20
1150	3,060E-16	1,450E-13	2,640E-14	4,190E-13	81,9	13,1	21,24	59,72	±	0,32	10,50
1165	1,750E-16	1,000E-13	1,880E-14	2,750E-13	84,8	12,5	34,01	56,99	±	0,22	10,20
1175	1,030E-16	5,710E-14	1,100E-14	1,590E-13	84,3	12,2	41,5	55,65	±	0,17	9,89
1185	7,690E-17	3,360E-14	6,620E-15	9,860E-14	80,3	12	46,01	54,85	±	0,33	9,69
1195	6,340E-17	2,130E-14	4,220E-15	6,720E-14	75,2	12	48,88	54,97	±	0,42	9,60
1215	7,260E-17	2,600E-14	5,210E-15	8,130E-14	76,7	12	52,43	54,87	±	0,32	9,49
1235	1,380E-16	6,250E-14	1,270E-14	1,930E-13	82,1	12,5	61,07	57,19	±	0,18	9,38
1255	2,120E-16	1,070E-13	2,200E-14	3,300E-13	84,2	12,7	76,04	57,95	±	0,18	9,23
1270	1,160E-16	4,140E-14	8,690E-15	1,400E-13	78,3	12,6	81,95	57,66	±	0,3	9,09
1290	1,440E-16	4,100E-14	9,080E-15	1,530E-13	74,8	12,6	88,13	57,68	±	0,7	8,61
1310	1,250E-16	2,850E-14	5,920E-15	1,100E-13	69,1	12,9	92,16	59	±	1,15	9,17
1330	1,300E-16	1,830E-14	3,790E-15	8,440E-14	56,7	12,7	94,74	57,94	±	0,65	9,22
1360	1,510E-16	2,270E-14	4,870E-15	1,070E-13	60,2	13,2	98,05	60,36	±	0,63	8,90
1400	1,420E-16	1,310E-14	2,620E-15	7,500E-14	45,7	13,1	99,84	59,94	±	1,96	9,52
1450	1,610E-16	1,170E-15	2,370E-16	5,290E-14	10,3	23,2	100	104,4	±	49,74	9,39
Total	3,720E-15	7,470E-13	1,470E-13	2,990E-12		13,4		61,24	±	0,88	

J= 0.002572±0.3%
lK40= 5.543.10-10 a-1
VG3600, Sensitivity: 4.03 x10-17 mol/mV
(36Ar/37Ar)Ca=3.50 x10-4
(39Ar/37Ar)Ca=7.86 x10-4
(40Ar/39Ar)K=2.70 x10-2

e)

Age spectrum data: 97050 Hornblende, 125-250 mm
Amphibolitic gneiss, Trinity Hills
Can ANU 29, irradiated in HIFAR for 192 hours

Temp. (°C)	36Ar (mol)	37Ar (mol)	39Ar (mol)	40Ar (mol)	% 40Ar*	40*Ar 39ArK	Cum. 39Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
800	6,440E-16	2,170E-15	6,620E-16	1,960E-13	2,7	7,983	0,29	58,4	±	33,1	6,26
1000	1,510E-16	4,310E-15	1,340E-15	9,060E-14	51,4	34,96	0,87	242,8	±	3,94	6,15
1100	2,190E-16	1,570E-13	3,290E-14	2,920E-13	83,2	7,424	15,13	54,38	±	0,24	9,13
1120	1,320E-16	1,380E-13	2,900E-14	2,390E-13	89,3	7,391	27,7	54,14	±	0,32	9,07
1135	1,150E-16	1,240E-13	2,630E-14	2,140E-13	89,8	7,342	39,1	53,78	±	0,22	9,00
1155	1,640E-16	1,390E-13	2,940E-14	2,470E-13	85,9	7,234	51,86	53	±	0,21	9,01
1170	1,100E-16	9,520E-14	2,020E-14	1,670E-13	86,1	7,114	60,64	52,14	±	0,23	8,97
1185	5,090E-17	4,540E-14	9,710E-15	7,960E-14	86,7	7,133	64,85	52,28	±	0,33	8,92
1200	4,230E-17	2,080E-14	4,460E-15	4,290E-14	75,6	7,292	66,78	53,42	±	0,59	8,89
1220	5,820E-17	3,660E-14	7,860E-15	7,080E-14	80,8	7,301	70,19	53,49	±	0,31	8,88
1240	1,040E-16	1,140E-13	2,460E-14	1,980E-13	90,1	7,274	80,85	53,29	±	0,18	8,84
1260	1,030E-16	9,380E-14	2,030E-14	1,730E-13	87,7	7,474	89,67	54,74	±	0,18	8,79
1300	7,030E-16	6,580E-14	1,430E-14	3,000E-13	32,8	6,915	95,86	50,7	±	0,81	8,78
1350	1,630E-16	3,750E-14	8,100E-15	1,040E-13	57,2	7,352	99,38	53,85	±	0,55	8,83
1450	2,770E-16	7,180E-15	1,440E-15	9,630E-14	15,8	10,62	100	77,27	±	16,9	9,53
Total	3,030E-15	1,080E-12	2,310E-13	2,510E-12		7,476		54,75	±	0,51	

J= 0.004121±0.3%
lK40= 5.543.10-10 a-1
VG3600, Sensitivity: 4.03 x10-17 mol/mV
(36Ar/37Ar)Ca=3.50 x10-4
(39Ar/37Ar)Ca=7.86 x10-4
(40Ar/39Ar)K=2.70 x10-2

f)

Age spectrum data: 97068 Hornblende, 125-250 mm
Amphibolitic gneiss, South Sicamous
Can ANU#30, irradiated in HIFAR for 140 hours

Temp. (°C)	36Ar (mol)	37Ar (mol)	39Ar (mol)	40Ar (mol)	% 40Ar*	40*Ar 39ArK	Cum. 39Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
600	3,820E-16	2,750E-16	4,470E-17	1,260E-13	10,5	298,2	0,02	1054	±	943	11,70
750	2,560E-16	1,410E-15	3,110E-16	1,020E-13	26,1	85,94	0,14	371,5	±	30,12	8,62
950	3,580E-16	5,450E-15	2,350E-15	1,870E-13	43,8	34,95	1,07	160,4	±	2,32	4,42
1050	1,220E-16	6,650E-15	1,850E-15	6,880E-14	48,5	18,06	1,8	84,65	±	1,02	6,84
1100	1,240E-16	1,260E-14	2,310E-15	6,410E-14	44,8	12,48	2,72	58,92	±	0,93	10,40
1130	1,200E-16	2,550E-14	5,670E-15	9,850E-14	66,4	11,57	4,96	54,71	±	0,38	8,56
1150	1,770E-16	7,890E-14	1,930E-14	2,640E-13	83,1	11,42	12,59	54	±	0,31	7,79
1165	1,720E-16	8,380E-14	2,020E-14	2,760E-13	84,6	11,61	20,58	54,87	±	0,24	7,91
1180	1,380E-16	7,340E-14	1,770E-14	2,400E-13	85,9	11,66	27,58	55,09	±	0,27	7,89
1195	1,390E-16	9,890E-14	2,500E-14	3,160E-13	90	11,42	37,45	53,98	±	0,24	7,56
1205	9,700E-17	6,060E-14	1,560E-14	1,990E-13	88,6	11,37	43,6	53,78	±	0,24	7,42
1220	9,760E-17	5,750E-14	1,490E-14	1,900E-13	87,8	11,28	49,48	53,33	±	0,16	7,38
1235	1,130E-16	5,700E-14	1,440E-14	1,890E-13	85,4	11,23	55,19	53,12	±	0,13	7,52
1250	1,700E-16	9,340E-14	2,380E-14	3,140E-13	86,8	11,49	64,59	54,34	±	0,16	7,48
1265	1,270E-15	1,190E-13	3,110E-14	7,110E-13	48,7	11,16	76,88	52,79	±	0,64	7,31
1275	6,010E-16	5,220E-14	1,360E-14	3,180E-13	45,8	10,73	82,26	50,79	±	0,42	7,31
1285	9,800E-17	2,770E-14	7,200E-15	1,080E-13	75,6	11,35	85,11	53,67	±	0,36	7,32
1305	1,670E-16	7,360E-14	1,920E-14	2,590E-13	83,7	11,31	92,71	53,5	±	0,2	7,30
1325	1,240E-16	3,470E-14	9,050E-15	1,350E-13	75,4	11,29	96,29	53,38	±	0,35	7,29
1370	1,490E-16	3,440E-14	8,960E-15	1,420E-13	71,4	11,38	99,83	53,8	±	0,39	7,31
1450	1,690E-16	1,870E-15	4,310E-16	5,440E-14	8,4	10,59	100	50,1	±	14,01	8,28
Total	5,050E-15	9,990E-13	2,530E-13	4,360E-12		11,77		55,64	±	0,56	

J= 0.002660±0.3%
lK40= 5.543.10-10 a-1
VG3600, Sensitivity: 4.03 x10-17 mol/mV
(36Ar/37Ar)Ca=3.50 x10-4
(39Ar/37Ar)Ca=7.86 x10-4
(40Ar/39Ar)K=2.70 x10-2

g)

Age spectrum data: 97071 Hornblende, 125-250 mm
Amphibolite boudin in detachment zone, Revelstoke dam, West side of Columbia river
Can ANU#29, irradiated in HIFAR for 192 hours

Temp. (°C)	36Ar (mol)	37Ar (mol)	39Ar (mol)	40Ar (mol)	% 40Ar*	40*Ar 39ArK	Cum. 39Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
600	3,990E-16	7,920E-16	7,110E-17	1,550E-13	23,9	525,9	0,03	2081	±	379	21,30
800	2,720E-16	5,270E-15	5,920E-16	1,150E-13	30,7	60,31	0,29	400,9	±	22,68	17,10
1000	3,270E-16	1,160E-14	2,640E-15	1,320E-13	27,5	13,75	1,46	99,51	±	2,68	8,34
1100	1,670E-16	4,370E-14	5,760E-15	1,130E-13	60	11,82	3,99	85,92	±	0,77	14,50
1130	1,760E-16	1,380E-13	2,600E-14	2,500E-13	84,6	8,16	15,48	59,74	±	0,27	10,10
1150	2,280E-16	1,910E-13	3,640E-14	3,370E-13	85,6	7,965	31,52	58,34	±	0,32	10,00
1165	1,480E-16	1,140E-13	2,180E-14	2,070E-13	84,2	8,028	41,12	58,79	±	0,27	10,00
1180	1,150E-16	6,920E-14	1,310E-14	1,310E-13	79,4	7,946	46,91	58,19	±	0,25	10,10
1195	7,610E-17	4,580E-14	8,770E-15	8,590E-14	79,1	7,775	50,78	56,97	±	0,29	9,96
1205	7,940E-17	2,950E-14	5,640E-15	6,380E-14	67,8	7,699	53,27	56,42	±	0,48	9,96
1225	9,870E-17	6,320E-14	1,200E-14	1,170E-13	80,3	7,828	58,57	57,35	±	0,27	10,00
1245	1,930E-16	1,340E-13	2,500E-14	2,460E-13	82,1	8,084	69,61	59,19	±	0,24	10,20
1265	3,580E-16	1,680E-13	3,200E-14	3,570E-13	74,9	8,377	83,74	61,3	±	0,21	9,98
1290	1,440E-16	7,450E-14	1,480E-14	1,560E-13	77,5	8,206	90,27	60,07	±	0,3	9,60
1350	6,740E-16	9,380E-14	1,870E-14	3,380E-13	43,8	7,928	98,54	58,07	±	0,65	9,55
1450	1,740E-16	1,520E-14	3,020E-15	7,790E-14	35,7	9,254	99,87	67,6	±	2,38	9,60
1450	2,030E-16	2,020E-15	2,890E-16	6,700E-14	10,9	25,44	100	180,1	±	78,2	13,30
Total	3,830E-15	1,200E-12	2,270E-13	2,950E-12		8,558		62,6	±	0,65	

J= 0.004125±0.3%
lK40= 5.543.10-10 a-1
VG3600, Sensitivity: 4.03 x10-17 mol/mV
(36Ar/37Ar)Ca=3.50 x10-4
(39Ar/37Ar)Ca=7.86 x10-4
(40Ar/39Ar)K=2.70 x10-2

h)

Age spectrum data: 97090 Hornblende, 250-425 mm
Amphibolite boudin, Monashee decollement, Victor lake, TC1
Can ANU#29, irradiated in HIFAR for 192 hours

Temp. (°C)	36Ar (mol)	37Ar (mol)	39Ar (mol)	40Ar (mol)	% 40Ar*	40*Ar 39ArK	Cum. 39Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
800	3,880E-16	3,760E-15	4,610E-16	2,280E-13	49,9	248,6	0,22	1272	±	12	15,60
1000	2,150E-16	7,980E-15	9,400E-16	1,460E-13	57,1	89,55	0,68	566,6	±	13,6	16,20
1100	6,150E-17	1,800E-14	1,470E-15	7,710E-14	78,8	41,75	1,39	286,4	±	4,5	23,50
1140	8,610E-17	5,610E-14	5,040E-15	2,100E-13	90,6	38,09	3,82	263	±	0,8	21,30
1160	2,620E-17	1,640E-15	1,370E-16	1,340E-14	43,2	42,45	3,89	290,8	±	34,3	22,90
1175	9,540E-17	6,990E-14	6,320E-15	2,600E-13	91,9	38,16	6,94	263,5	±	1,1	21,20
1190	1,060E-16	1,060E-13	1,030E-14	4,810E-13	95,7	45,09	11,92	307,4	±	1,4	19,70
1205	1,970E-16	2,670E-13	2,630E-14	1,260E-12	97,5	47,28	24,62	321,1	±	1,1	19,40
1220	1,110E-16	1,600E-13	1,570E-14	7,580E-13	97,8	47,65	32,2	323,4	±	1,1	19,60
1240	1,260E-16	1,600E-13	1,540E-14	7,010E-13	97	44,6	39,62	304,4	±	1,4	20,00
1260	2,050E-16	2,610E-13	2,470E-14	9,840E-13	96,5	38,79	51,56	267,5	±	0,8	20,20
1275	2,360E-16	2,890E-13	2,730E-14	1,170E-12	96,5	41,6	64,74	285,4	±	0,7	20,30
1290	2,330E-16	2,670E-13	2,560E-14	1,200E-12	96,5	45,47	77,12	309,8	±	0,9	19,90
1305	1,450E-16	1,430E-13	1,390E-14	6,520E-13	95,6	45,1	83,85	307,5	±	1,2	19,70
1350	2,580E-16	2,690E-13	2,620E-14	1,250E-12	96,1	46,35	96,51	315,3	±	1,3	19,60
1450	2,500E-16	7,170E-14	7,220E-15	3,840E-13	82,6	44,29	100	302,4	±	1,4	19,00
Total	2,740E-15	2,150E-12	2,070E-13	9,780E-12		44,74		305,2	±	1,2	

J= 0.004120±0.3%
lK40= 5.543.10-10 a-1
VG3600, Sensitivity: 4.03 x10-17 mol/mV
(36Ar/37Ar)Ca=3.50 x10-4
(39Ar/37Ar)Ca=7.86 x10-4
(40Ar/39Ar)K=2.70 x10-2

Data Repository item 2003031

Table DR2 : Muscovite analysis

a)

Age spectrum data: 97046 Muscovite, 152-251 µm
Leucogranite, C/S fabric, Okanagan detachment, Trinity Hills, West Mable lake
Can ANU#32, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% $^{40}Ar^*$	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
700	2,235E-15	1,347E-15	8,179E-14	1,468E-12	54,9	9,84	0,83	45,11	±	1,22	3,13E-02
850	6,329E-15	4,881E-15	9,112E-13	1,183E-11	84,0	10,90	10,09	49,89	±	0,11	1,02E-02
880	3,275E-15	1,403E-15	9,073E-13	1,082E-11	90,8	10,83	19,31	49,56	±	0,16	2,94E-03
900	1,982E-15	5,295E-16	1,151E-12	1,310E-11	95,3	10,85	31,01	49,65	±	0,07	8,74E-04
920	1,169E-15	2,339E-17	8,305E-13	9,359E-12	96,1	10,83	39,45	49,55	±	0,12	5,35E-05
940	1,008E-15	8,197E-17	6,385E-13	7,234E-12	95,6	10,84	45,94	49,60	±	0,16	2,44E-04
960	9,554E-16	9,173E-16	4,866E-13	5,567E-12	94,7	10,84	50,88	49,59	±	0,23	3,58E-03
980	9,491E-16	8,395E-16	4,916E-13	5,616E-12	94,8	10,83	55,88	49,56	±	0,22	3,25E-03
1010	1,198E-15	1,376E-15	4,540E-13	5,247E-12	93,0	10,75	60,49	49,22	±	0,19	5,76E-03
1040	1,159E-15	1,685E-15	4,739E-13	5,474E-12	93,5	10,80	65,31	49,44	±	0,07	6,75E-03
1080	1,370E-15	1,675E-15	6,380E-13	7,267E-12	94,2	10,73	71,79	49,11	±	0,17	4,99E-03
1120	1,931E-15	2,690E-15	1,284E-12	1,450E-11	95,8	10,83	84,83	49,55	±	0,08	3,98E-03
1180	1,259E-15	4,584E-15	1,192E-12	1,329E-11	97,0	10,82	96,94	49,51	±	0,07	7,31E-03
1450	1,353E-14	3,751E-14	3,008E-13	7,274E-12	45,0	10,88	100,00	49,80	±	0,39	2,37E-01
Total	3,835E-14	5,954E-14	9,841E-12	1,180E-10		10,82		49,52	±	0,14	

J= 0.002572±0.3%

λ_{K40}= 5.543×10^{-10} a^{-1}
VG1200, Sensitivity: 4.5×10^{-15} mol/mV
$(^{36}Ar/^{37}Ar)_{Ca} = 3.50 \times 10^{-4}$
$(^{39}Ar/^{37}Ar)_{Ca} = 7.86 \times 10^{-4}$
$(^{40}Ar/^{39}Ar)_{K} = 2.70 \times 10^{-2}$

b)

Age spectrum data: 97070 Muscovite, 251-500 μm
Mylonitic leucogranite in Columbia detachment zone, Revelstoke dam, West side of Columbia river
Can ANU#32, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% $^{40}Ar^*$	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
700	2,990E-15	2,250E-15	1,330E-13	1,900E-12	53,4	7,63	1,39	35,92	±	0,42	3,22E-02
800	2,600E-15	6,350E-16	2,970E-13	3,730E-12	79,2	9,97	4,47	46,76	±	0,34	4,06E-03
850	8,270E-16	2,290E-17	3,260E-13	4,100E-12	93,8	11,78	7,87	55,14	±	0,84	1,33E-04
870	1,540E-15	8,770E-16	3,800E-13	4,380E-12	89,4	10,30	11,82	48,29	±	0,30	4,38E-03
890	1,500E-15	8,230E-16	5,810E-13	6,440E-12	92,9	10,30	17,87	48,29	±	0,18	2,69E-03
910	1,100E-15	2,520E-16	8,570E-13	9,190E-12	96,2	10,32	26,79	48,41	±	0,11	5,58E-04
930	1,000E-15	1,870E-15	7,360E-13	7,820E-12	96,0	10,21	34,44	47,87	±	0,10	4,82E-03
950	8,460E-16	8,590E-16	5,300E-13	5,660E-12	95,3	10,18	39,96	47,76	±	0,20	3,08E-03
980	8,570E-16	1,590E-16	6,030E-13	6,450E-12	95,8	10,24	46,24	48,03	±	0,12	5,01E-04
1110	3,310E-15	2,980E-15	4,050E-12	4,260E-11	97,5	10,26	88,38	48,12	±	0,06	1,40E-03
1450	1,250E-14	1,400E-14	1,120E-12	1,530E-11	75,8	10,38	100,00	48,69	±	0,26	2,38E-02
Total	2,900E-14	2,470E-14	9,610E-12	1,080E-10		10,28		48,21	±	0,16	

J=0.002635±0.3%
λ_{K40}= 5.543×10^{-10} a^{-1}
VG1200, Sensitivity: 4.5×10^{-15} mol/mV
$(^{36}Ar/^{37}Ar)_{Ca}=3.50 \times 10^{-4}$
$(^{39}Ar/^{37}Ar)_{Ca}=7.86 \times 10^{-4}$
$(^{40}Ar/^{39}Ar)_{K}=2.70 \times 10^{-2}$

c)

Age spectrum data: 97106 Muscovite, 353-422 μm
Mylonotic leucogranite, in detachment zone, East of Mt Hall
Can ANU#32, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% $^{40}Ar^*$	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
700	1,515E-15	6,513E-15	1,044E-13	1,331E-12	66,2	8,44	1,00	39,00	±	0,54	1,19E-01
850	5,705E-15	9,733E-15	7,739E-13	9,866E-12	82,7	10,54	8,42	48,61	±	0,11	2,39E-02
880	2,744E-15	6,339E-16	8,492E-13	9,915E-12	91,6	10,69	16,56	49,29	±	0,15	1,42E-03
900	1,502E-15	2,797E-16	7,587E-13	8,516E-12	94,5	10,61	23,83	48,92	±	0,10	7,01E-04
920	7,731E-16	6,567E-17	6,477E-13	7,181E-12	96,6	10,71	30,04	49,35	±	0,13	1,93E-04
950	1,222E-15	1,071E-15	7,928E-13	8,798E-12	95,7	10,62	37,64	48,93	±	0,08	2,57E-03
980	1,210E-15	3,974E-16	7,273E-13	8,119E-12	95,4	10,65	44,61	49,06	±	0,14	1,04E-03
1010	1,243E-15	6,042E-16	7,408E-13	8,264E-12	95,3	10,63	51,72	49,01	±	0,16	1,55E-03
1040	1,311E-15	4,456E-16	7,986E-13	8,911E-12	95,4	10,65	59,37	49,07	±	0,11	1,06E-03
1070	1,262E-15	1,297E-15	8,245E-13	9,161E-12	95,7	10,63	67,27	49,00	±	0,10	2,99E-03
1110	1,698E-15	1,563E-15	1,341E-12	1,480E-11	96,4	10,64	80,13	49,03	±	0,07	2,21E-03
1210	1,333E-15	1,102E-15	1,583E-12	1,736E-11	97,5	10,69	95,30	49,29	±	0,07	1,32E-03
1450	6,199E-15	1,954E-15	4,906E-13	7,079E-12	73,9	10,67	100,00	49,17	±	0,22	7,57E-03
Total	2,772E-14	2,566E-14	1,043E-11	1,193E-10		10,63		48,97	±	0,12	

J= 0.002590±0.3%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG1200, Sensitivity: 4.5x10^{-15} mol/mV

($^{36}Ar/^{37}Ar)_{Ca}$=3.50x10^{-4}

($^{39}Ar/^{37}Ar)_{Ca}$=7.86x10^{-4}

($^{40}Ar/^{39}Ar)_{K}$=2.70x10^{-2}

Table DR3 : Biotite analysis

a)

Age spectrum data: 97005 Biotite, 180-500 μm
Melanosome in migmatitic gneiss, Mt Odin
Can ANU#30, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% ^{40}Ar*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
600	5,383E-14	5,665E-16	2,104E-14	1,597E-11	0,4	2,99	0,70	14,38	±	12,15	5,12E-02
650	1,345E-14	1,466E-15	3,530E-14	4,158E-12	4,4	5,21	1,88	24,96	±	2,03	7,89E-02
670	1,879E-14	2,184E-15	5,212E-14	5,909E-12	6,0	6,84	3,62	32,70	±	1,70	7,96E-02
700	2,151E-14	8,549E-18	7,044E-14	7,166E-12	11,3	11,47	5,98	54,56	±	7,66	2,31E-04
760	4,746E-14	1,874E-15	1,640E-13	1,569E-11	10,6	10,12	11,45	48,22	±	0,86	2,17E-02
750	5,343E-14	2,270E-15	3,022E-13	1,905E-11	17,1	10,78	21,55	51,30	±	0,33	1,43E-02
760	2,227E-14	2,143E-15	3,170E-13	1,016E-11	35,2	11,28	32,14	53,63	±	0,29	1,28E-02
780	1,224E-14	2,092E-15	3,561E-13	7,740E-12	53,1	11,55	44,03	54,91	±	0,20	1,12E-02
800	7,294E-15	3,028E-15	5,583E-13	8,720E-12	75,1	11,73	62,68	55,77	±	0,11	1,03E-02
810	3,381E-15	2,097E-15	4,066E-13	5,795E-12	82,6	11,77	76,27	55,94	±	0,10	9,80E-03
820	2,315E-15	2,069E-15	3,788E-13	5,199E-12	86,7	11,89	88,92	56,53	±	0,10	1,04E-02
830	2,300E-15	1,786E-15	3,317E-13	4,639E-12	85,2	11,91	100,00	56,62	±	0,14	1,02E-02
Total	2,583E-13	2,158E-14	2,994E-12	1,102E-10		11,29		53,72	±	0,52	

J= 0.002676±0.3%
λ_{K40}= 5.543×10^{-10} a^{-1}
VG1200, Sensitivity: 3.23×10^{-15} mol.mV
$(^{36}Ar/^{37}Ar)_{Ca}$=3.50×10^{-4}
$(^{39}Ar/^{37}Ar)_{Ca}$=7.86×10^{-4}
$(^{40}Ar/^{39}Ar)_{K}$=2.70×10^{-2}

b)

Age spectrum data: 97020 Biotite, 251-422 μm
Melanosome in migmatitic gneiss, East Mt Thor
Can ANU#30, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% $^{40}Ar^*$	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
650	5,891E-14	3,558E-15	5,886E-14	1,754E-11	0,8	2,29	0,95	10,90	±	14,65	1,15E-01
670	9,369E-14	2,043E-15	7,700E-14	2,807E-11	1,4	4,96	2,18	23,54	±	9,25	5,04E-02
690	1,016E-13	1,787E-15	1,263E-13	3,117E-11	3,7	9,05	4,21	42,76	±	4,99	2,69E-02
710	7,622E-14	9,350E-16	2,102E-13	2,494E-11	9,7	11,50	7,59	54,16	±	2,23	8,45E-03
730	3,471E-14	1,025E-15	3,552E-13	1,468E-11	30,0	12,41	13,30	58,39	±	0,62	5,48E-03
750	5,032E-15	1,463E-15	4,496E-13	6,727E-12	77,7	11,63	20,53	54,76	±	0,22	6,18E-03
770	2,810E-15	6,806E-16	4,838E-13	6,467E-12	87,0	11,63	28,31	54,74	±	0,24	2,67E-03
790	2,482E-15	1,216E-15	6,819E-13	8,684E-12	91,3	11,63	39,27	54,77	±	0,14	3,39E-03
810	1,904E-15	9,878E-16	1,043E-12	1,281E-11	95,4	11,71	56,04	55,12	±	0,17	1,80E-03
830	1,099E-15	1,446E-15	7,862E-13	9,564E-12	96,4	11,73	68,68	55,20	±	0,25	3,49E-03
845	4,111E-16	3,543E-16	3,774E-13	4,603E-12	97,1	11,85	74,75	55,77	±	0,25	1,78E-03
865	5,410E-16	1,114E-15	3,912E-13	4,803E-12	96,5	11,84	81,04	55,75	±	0,13	5,41E-03
885	4,392E-16	1,501E-15	2,431E-13	2,988E-12	95,4	11,73	84,94	55,24	±	0,17	1,17E-02
905	3,905E-16	8,408E-16	2,079E-13	2,574E-12	95,3	11,80	88,29	55,55	±	0,41	7,68E-03
1000	1,457E-15	6,356E-15	7,287E-13	9,077E-12	95,0	11,84	100,00	55,74	±	0,14	1,66E-02
Total	3,817E-13	2,531E-14	6,221E-12	1,847E-10		11,53		54,31	±	0,63	

J= 0.002650±0.3%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG1200, Sensitivity: 3.23x10^{-15} mol.mV

$(^{36}Ar/^{37}Ar)_{Ca}$=3.50x10^{-4}

$(^{39}Ar/^{37}Ar)_{Ca}$=7.86x10^{-4}

$(^{40}Ar/^{39}Ar)_K$=2.70x10^{-2}

c)

Age spectrum data: 97023 Biotite, 125-250 μm
Metapelitic gneiss, Mt Symonds
Can ANU#30, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% ^{40}Ar*	$^{40*}Ar/^{39}Ar_K$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
600	9,209E-15	2,956E-17	8,585E-14	3,429E-12	20,6	8,22	0,93	38,63	±	1,02	6,54E-04
650	5,509E-15	2,252E-17	1,207E-13	2,760E-12	40,9	9,35	2,23	43,88	±	2,46	3,55E-04
680	6,567E-15	1,760E-16	2,440E-13	4,419E-12	55,9	10,13	4,86	47,49	±	0,30	1,37E-03
710	6,100E-15	6,553E-16	5,182E-13	7,179E-12	74,7	10,35	10,45	48,50	±	0,18	2,40E-03
740	4,610E-15	2,257E-17	1,171E-12	1,369E-11	89,8	10,50	23,09	49,19	±	0,11	3,66E-05
760	1,432E-15	2,258E-17	1,883E-12	2,030E-11	97,7	10,53	43,40	49,34	±	0,07	2,28E-05
780	6,033E-16	2,260E-17	2,428E-12	2,588E-11	99,1	10,56	69,61	49,47	±	0,04	1,77E-05
795	3,816E-16	2,261E-17	1,388E-12	1,486E-11	99,0	10,60	84,58	49,65	±	0,08	3,10E-05
810	3,390E-16	2,290E-17	3,769E-13	4,045E-12	97,3	10,44	88,65	48,93	±	0,21	1,15E-04
850	3,992E-16	1,354E-16	4,331E-13	4,704E-12	97,2	10,56	93,32	49,48	±	0,30	5,94E-04
950	5,829E-16	2,293E-17	2,526E-13	2,849E-12	93,7	10,57	96,05	49,52	±	0,44	1,72E-04
1050	6,074E-16	2,295E-17	2,711E-13	3,105E-12	94,0	10,76	98,97	50,42	±	0,25	1,61E-04
1350	2,318E-15	5,833E-16	9,509E-14	1,803E-12	61,9	11,74	100,00	54,90	±	1,57	1,17E-02
Total	3,866E-14	1,761E-15	9,267E-12	1,090E-10		10,51		49,22	±	0,17	

J= 0.002633±0.3%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG1200, Sensitivity: 4.5x10^{-15} mol/mV

$(^{36}Ar/^{37}Ar)_{Ca}$=3.50x10^{-4}

$(^{39}Ar/^{37}Ar)_{Ca}$=7.86x10^{-4}

$(^{40}Ar/^{39}Ar)_K$=2.70x10^{-2}

(39Ar/37Ar)Ca=7.86x10-4

(40Ar/39Ar)K=2.70x10-2

d)

Age spectrum data: 97067 Biotite, 125-250 μm
Melanosome in migmatitic paragneiss, South Sicamous
Can ANU#30, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% ^{40}Ar*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
600	2,166E-14	2,300E-17	8,102E-14	7,072E-12	9,5	8,26	0,98	38,95	±	1,97	5,39E-04
700	6,567E-15	1,798E-16	2,440E-13	4,375E-12	55,5	9,95	3,93	46,81	±	0,30	1,40E-03
720	1,169E-14	2,305E-17	1,031E-12	1,389E-11	74,9	10,10	16,41	47,50	±	0,19	4,25E-05
740	6,166E-15	2,307E-17	1,950E-12	2,161E-11	91,3	10,12	40,01	47,61	±	0,06	2,25E-05
755	1,463E-15	2,308E-17	1,719E-12	1,787E-11	97,3	10,12	60,82	47,59	±	0,14	2,55E-05
765	4,984E-16	2,336E-17	1,104E-12	1,146E-11	98,5	10,22	74,18	48,06	±	0,10	4,02E-05
775	6,849E-16	9,858E-19	1,263E-12	1,309E-11	98,2	10,18	89,46	47,87	±	0,09	1,48E-06
785	7,737E-17	2,076E-16	4,665E-14	5,067E-13	95,2	10,35	90,03	48,65	±	0,43	8,46E-03
805	2,026E-16	1,322E-16	2,287E-13	2,416E-12	97,3	10,28	92,79	48,34	±	0,42	1,10E-03
900	6,561E-16	1,930E-15	2,182E-13	2,407E-12	91,7	10,12	95,43	47,60	±	0,15	1,68E-02
1000	9,864E-16	1,798E-15	2,225E-13	2,598E-12	88,6	10,34	98,13	48,63	±	0,43	1,54E-02
1350	3,228E-15	3,428E-15	1,548E-13	2,578E-12	62,9	10,47	100,00	49,24	±	0,61	4,21E-02
Total	5,388E-14	7,792E-15	8,262E-12	9,987E-11		10,13		47,67	±	0,16	

J= 0.002642±0.3%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG1200, Sensitivity: 4.5x10^{-15} mol/mV

$(^{36}Ar/^{37}Ar)_{Ca}$=3.50x10^{-4}

$(^{39}Ar/^{37}Ar)_{Ca}$=7.86x10^{-4}

$(^{40}Ar/^{39}Ar)_{K}$=2.70x10^{-2}

(40Ar/39Ar)K=2.70x10-2

e)

Age spectrum data: 97073 Biotite, 178-500 μm
Mylonitic metapelitic gneiss, in detachment zone, Revelstoke dam, West of Columbia river
Can ANU#32, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% ^{40}Ar*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
650	2,787E-14	8,837E-15	2,386E-13	9,916E-12	16,9	7,02	3,01	32,86	±	0,62	7,04E-02
700	2,502E-14	6,527E-15	6,090E-13	1,317E-11	43,8	9,46	10,71	44,14	±	0,27	2,04E-02
720	1,315E-14	3,090E-15	9,529E-13	1,364E-11	71,3	10,21	22,75	47,57	±	0,12	6,16E-03
735	3,713E-15	2,177E-15	8,540E-13	9,859E-12	88,6	10,23	33,54	47,68	±	0,09	4,84E-03
750	1,314E-15	1,738E-15	5,932E-13	6,517E-12	93,8	10,31	41,04	48,02	±	0,15	5,57E-03
760	2,442E-15	1,437E-15	1,063E-12	1,171E-11	93,6	10,31	54,47	48,04	±	0,11	2,57E-03
775	1,080E-15	1,178E-15	6,517E-13	7,070E-12	95,2	10,33	62,70	48,14	±	0,12	3,43E-03
785	1,196E-15	1,441E-15	6,033E-13	6,626E-12	94,4	10,37	70,33	48,31	±	0,12	4,54E-03
800	1,135E-15	1,205E-15	6,966E-13	7,527E-12	95,3	10,30	79,13	47,98	±	0,10	3,29E-03
850	7,738E-16	2,261E-15	5,616E-13	6,030E-12	96,0	10,30	86,23	48,01	±	0,13	7,65E-03
1000	1,134E-15	1,041E-14	1,090E-12	1,164E-11	96,9	10,35	100,00	48,22	±	0,13	1,82E-02
Total	7,883E-14	4,030E-14	7,913E-12	1,037E-10		10,14		47,23	±	0,15	

J= 0.002617±0.3%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG1200, Sensitivity: 3.23x10^{-15} mol/mV

($^{36}Ar/^{37}Ar)_{Ca}$=3.50x10^{-4}

($^{39}Ar/^{37}Ar)_{Ca}$=7.86x10^{-4}

($^{40}Ar/^{39}Ar)_{K}$=2.70x10^{-2}

(40Ar/39Ar)K=2.70x10-2

f)

Age spectrum data: 97091 Biotite, 178-353 μm
Mylonitic metapelitic gneiss, Monashee decollement, Victor lake
Can ANU#32, irradiated in HIFAR for 140 hours

Temp. (°C)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% ^{40}Ar*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
650	1,335E-14	7,470E-15	2,149E-13	6,019E-12	34,4	9,62	2,39	44,71	±	0,66	6,60E-02
700	1,289E-14	3,671E-15	7,328E-13	1,146E-11	66,6	10,42	10,53	48,37	±	0,15	9,52E-03
720	5,907E-15	1,785E-15	1,232E-12	1,484E-11	88,0	10,60	24,23	49,20	±	0,07	2,75E-03
740	2,005E-15	3,123E-15	1,423E-12	1,573E-11	96,0	10,61	40,05	49,23	±	0,05	4,17E-03
755	5,939E-16	6,924E-16	1,152E-12	1,252E-11	98,4	10,69	52,85	49,61	±	0,10	1,14E-03
770	6,288E-16	2,912E-15	1,358E-12	1,476E-11	98,5	10,71	67,94	49,68	±	0,08	4,08E-03
785	4,303E-16	1,444E-15	9,338E-13	1,017E-11	98,5	10,73	78,32	49,76	±	0,12	2,94E-03
800	4,070E-16	1,049E-15	6,359E-13	6,966E-12	98,0	10,74	85,39	49,82	±	0,17	3,13E-03
850	5,504E-16	4,722E-15	4,974E-13	5,466E-12	96,8	10,64	90,92	49,35	±	0,12	1,80E-02
950	4,592E-16	8,307E-15	4,790E-13	5,251E-12	97,2	10,66	96,25	49,44	±	0,21	3,30E-02
1350	3,329E-15	3,717E-14	3,377E-13	4,619E-12	78,6	10,75	100,00	49,87	±	0,27	2,09E-01
Total	4,055E-14	7,235E-14	8,996E-12	1,078E-10		10,63		49,30	±	0,12	

J= 0.002608±0.3

λ_{K40}= 5.543×10^{-10} a^{-1}

VG1200, Sensitivity: 4.5×10^{-15} mol/mV

$(^{36}Ar/^{37}Ar)_{Ca}$=3.50×10^{-4}

$(^{39}Ar/^{37}Ar)_{Ca}$=7.86×10^{-4}

$(^{40}Ar/^{39}Ar)_{K}$=2.70×10^{-2}

Table DR4 : K-Feldspar analysis

a)

Age spectrum data: 97013 K.Feldspar, 125-250 µm
Leucosome from migmatitic paragneiss, Mt Odin
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
450	15	2,781E-17	8,626E-19	1,666E-16	4,540E-14	81,9	223,14	0,02	816,49	±	15,02	9,84E-03
450	35	3,154E-17	5,090E-19	1,070E-16	1,132E-14	17,7	18,69	0,04	84,50	±	20,82	9,04E-03
500	35	1,675E-17	8,351E-18	2,197E-16	1,111E-14	55,4	28,02	0,07	125,22	±	6,54	7,22E-02
500	35	3,062E-17	5,098E-19	3,060E-16	1,491E-14	39,3	19,13	0,11	86,41	±	5,97	3,16E-03
550	15	1,130E-17	2,239E-18	6,207E-16	2,096E-14	84,0	28,36	0,20	126,67	±	3,58	6,85E-03
550	35	2,076E-17	1,103E-17	8,941E-16	1,629E-14	62,2	11,34	0,32	51,70	±	2,08	2,34E-02
600	15	1,379E-17	1,645E-17	1,757E-15	3,706E-14	88,9	18,74	0,57	84,71	±	0,70	1,78E-02
600	35	2,519E-17	2,501E-18	2,743E-15	3,899E-14	80,7	11,48	0,95	52,33	±	0,60	1,73E-03
650	15	1,428E-17	4,678E-17	4,281E-15	7,240E-14	94,0	15,90	1,54	72,12	±	0,41	2,08E-02
650	35	2,351E-17	3,330E-17	5,021E-15	5,913E-14	88,0	10,37	2,24	47,35	±	0,34	1,26E-02
700	15	1,556E-17	5,961E-17	6,341E-15	8,731E-14	94,5	13,02	3,12	59,26	±	0,22	1,79E-02
700	35	2,610E-17	8,651E-17	7,815E-15	8,669E-14	90,9	10,08	4,20	46,05	±	0,16	2,10E-02
750	15	1,532E-17	6,342E-17	7,817E-15	1,016E-13	95,3	12,39	5,29	56,44	±	0,15	1,54E-02
750	35	2,579E-17	9,268E-17	1,053E-14	1,142E-13	93,1	10,09	6,75	46,10	±	0,14	1,67E-02
800	15	1,864E-17	1,245E-16	1,206E-14	1,462E-13	96,0	11,64	8,42	53,07	±	0,26	1,96E-02
800	35	3,021E-17	1,343E-16	2,066E-14	2,197E-13	95,7	10,17	11,29	46,47	±	0,17	1,23E-02
850	15	2,020E-17	1,658E-16	2,189E-14	2,462E-13	97,3	10,95	14,33	49,97	±	0,16	1,44E-02
850	35	4,044E-17	1,750E-16	3,018E-14	3,212E-13	96,0	10,22	18,52	46,69	±	0,15	1,10E-02
900	15	2,625E-17	1,824E-16	2,979E-14	3,247E-13	97,4	10,62	22,65	48,47	±	0,11	1,16E-02
900	35	4,711E-17	2,453E-16	4,236E-14	4,575E-13	96,7	10,45	28,53	47,70	±	0,12	1,10E-02
950	15	2,796E-17	1,864E-16	3,468E-14	4,143E-13	97,8	11,68	33,34	53,27	±	0,17	1,02E-02
950	35	5,283E-17	2,054E-16	4,257E-14	4,953E-13	96,6	11,24	39,25	51,29	±	0,12	9,17E-03
950	70	1,103E-16	1,292E-16	4,040E-14	5,280E-13	93,6	12,24	44,86	55,76	±	0,14	6,08E-03

1000	15	3,206E-17	4,117E-17	1,736E-14	3,285E-13	97,0	18,35	47,27	82,99	±	0,22	4,51E-03
1000	35	7,087E-17	8,150E-17	2,609E-14	4,074E-13	94,7	14,78	50,89	67,15	±	0,19	5,93E-03
1050	15	4,324E-17	1,622E-16	2,446E-14	5,233E-13	97,4	20,85	54,28	94,00	±	0,22	1,26E-02
1050	35	9,914E-17	1,239E-16	3,277E-14	5,588E-13	94,6	16,13	58,83	73,14	±	0,24	7,18E-03
1050	70	1,667E-16	1,845E-16	3,983E-14	7,015E-13	92,8	16,35	64,36	74,11	±	0,18	8,80E-03
1100	15	4,636E-17	1,048E-16	2,061E-14	4,192E-13	96,6	19,65	67,22	88,72	±	0,21	9,67E-03
1100	35	1,047E-16	2,041E-16	2,912E-14	5,062E-13	93,7	16,29	71,26	73,86	±	0,16	1,33E-02
1100	70	1,649E-16	1,820E-16	3,191E-14	5,463E-13	90,9	15,56	75,69	70,62	±	0,21	1,08E-02
1100	120	2,330E-16	1,014E-16	2,327E-14	4,172E-13	83,4	14,94	78,92	67,86	±	0,37	8,28E-03
1100	180	3,115E-16	7,097E-17	1,584E-14	3,216E-13	71,2	14,46	81,12	65,71	±	0,35	8,51E-03
1100	280	3,725E-16	2,535E-16	1,050E-14	2,608E-13	57,7	14,33	82,58	65,14	±	0,76	4,59E-02
1100	400	5,273E-16	4,079E-17	1,129E-14	3,232E-13	51,7	14,80	84,14	67,21	±	0,80	6,86E-03
1100	800	1,092E-15	1,638E-17	1,444E-14	5,385E-13	40,0	14,93	86,15	67,78	±	0,71	2,16E-03
1200	15	2,331E-17	3,392E-17	4,739E-15	9,646E-14	92,7	18,88	86,81	85,30	±	0,82	1,36E-02
1230	15	3,759E-17	5,113E-17	1,186E-14	2,172E-13	94,7	17,36	88,45	78,60	±	0,35	8,19E-03
1260	15	4,247E-17	6,174E-17	1,363E-14	2,533E-13	94,9	17,64	90,34	79,83	±	0,33	8,61E-03
1290	15	5,730E-17	8,342E-17	1,533E-14	2,972E-13	94,2	18,26	92,47	82,60	±	0,27	1,03E-02
1320	15	6,144E-17	5,122E-17	1,983E-14	3,631E-13	94,9	17,37	95,22	78,64	±	0,26	4,91E-03
1350	15	6,950E-17	4,658E-17	1,945E-14	3,673E-13	94,3	17,80	97,92	80,56	±	0,24	4,55E-03
1450	30	2,946E-16	8,429E-18	1,498E-14	3,513E-13	75,1	17,62	100,00	79,73	±	0,46	1,07E-03
Total		4,522E-15	3,877E-15	7,205E-13	1,167E-11		14,31		65,05	±	0,25	

J= 0.002565±0.59%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17}-mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

b)

Age spectrum data: 97025 K.Feldspar, 125-250 μm
Leucogranite sill deformed in the major foliation, Mt Symonds
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)		1 σ (Ma)	Ca/K
450	15	1,007E-15	1,852E-17	1,214E-15	3,934E-13	24,3	78,88	0,12	322,55	±	14,09	2,90E-02
450	35	3,598E-16	1,901E-17	7,310E-16	1,171E-13	9,2	14,75	0,19	64,86	±	11,70	4,94E-02
500	35	1,160E-16	2,749E-17	1,304E-15	5,212E-14	34,2	13,66	0,32	60,16	±	1,56	4,01E-02
500	35	1,275E-16	3,113E-17	1,799E-15	5,717E-14	34,0	10,82	0,50	47,80	±	1,08	3,29E-02
550	15	7,499E-17	7,926E-17	3,835E-15	6,550E-14	66,0	11,28	0,88	49,80	±	0,58	3,93E-02
550	35	6,433E-17	7,105E-17	5,336E-15	7,149E-14	73,2	9,81	1,40	43,40	±	0,43	2,53E-02
600	15	6,520E-17	1,026E-16	9,663E-15	1,174E-13	83,4	10,13	2,36	44,80	±	0,25	2,02E-02
600	35	4,376E-17	1,350E-16	1,296E-14	1,400E-13	90,5	9,78	3,64	43,26	±	0,17	1,98E-02
650	15	7,004E-17	1,997E-16	1,777E-14	1,995E-13	89,4	10,04	5,39	44,39	±	0,12	2,14E-02
650	35	3,726E-17	2,800E-16	2,268E-14	2,325E-13	95,0	9,74	7,63	43,10	±	0,11	2,35E-02
700	15	8,663E-17	3,610E-16	2,708E-14	2,986E-13	91,2	10,06	10,30	44,48	±	0,14	2,53E-02
700	35	2,656E-17	3,902E-16	3,245E-14	3,281E-13	97,4	9,84	13,50	43,54	±	0,08	2,28E-02
750	15	6,412E-17	4,447E-16	3,464E-14	3,676E-13	94,6	10,04	16,92	44,41	±	0,11	2,44E-02
750	35	2,497E-17	4,782E-16	4,459E-14	4,519E-13	98,1	9,94	21,32	43,98	±	0,07	2,04E-02
800	15	5,192E-17	4,609E-16	4,010E-14	4,197E-13	96,1	10,06	25,28	44,48	±	0,10	2,18E-02
800	35	3,135E-17	4,900E-16	4,841E-14	4,968E-13	97,9	10,05	30,05	44,42	±	0,13	1,92E-02
850	15	9,540E-17	4,546E-16	3,856E-14	4,224E-13	93,1	10,20	33,86	45,09	±	0,12	2,24E-02
850	35	4,006E-17	4,246E-16	4,304E-14	4,517E-13	97,1	10,19	38,11	45,07	±	0,15	1,87E-02
900	15	1,472E-16	3,610E-16	3,141E-14	3,786E-13	88,3	10,64	41,21	47,03	±	0,17	2,18E-02
900	35	7,836E-17	3,357E-16	3,250E-14	3,647E-13	93,4	10,48	44,41	46,34	±	0,16	1,96E-02
950	15	2,228E-16	2,491E-16	2,899E-14	3,968E-13	83,2	11,39	47,27	50,31	±	0,17	1,63E-02
950	35	1,238E-16	2,644E-16	3,393E-14	4,118E-13	90,9	11,03	50,62	48,74	±	0,18	1,48E-02
950	70	2,168E-16	2,748E-16	3,937E-14	5,055E-13	87,1	11,19	54,51	49,41	±	0,16	1,33E-02
1000	15	1,891E-16	1,640E-16	2,507E-14	3,585E-13	84,2	12,04	56,98	53,13	±	0,20	1,24E-02
1000	35	2,155E-16	2,776E-16	3,261E-14	4,325E-13	85,1	11,29	60,20	49,84	±	0,18	1,62E-02
1050	15	3,096E-16	4,115E-16	3,661E-14	5,205E-13	82,2	11,69	63,81	51,61	±	0,31	2,14E-02

1050	35	3,422E-16	5,478E-16	4,124E-14	5,643E-13	81,9	11,20	67,88	49,48	±	0,16	2,52E-02
1050	70	4,288E-16	7,430E-16	4,251E-14	6,051E-13	78,9	11,23	72,08	49,59	±	0,18	3,32E-02
1100	15	3,141E-16	5,732E-16	2,355E-14	3,716E-13	74,9	11,81	74,40	52,13	±	0,37	4,62E-02
1100	35	4,413E-16	7,608E-16	2,952E-14	4,717E-13	72,2	11,54	77,31	50,93	±	0,22	4,90E-02
1100	70	5,682E-16	9,969E-16	3,370E-14	5,581E-13	69,8	11,55	80,64	51,00	±	0,31	5,62E-02
1100	120	5,041E-16	7,239E-16	2,890E-14	4,834E-13	69,0	11,55	83,49	50,98	±	0,35	4,76E-02
1100	180	3,810E-16	5,151E-16	2,382E-14	3,937E-13	71,3	11,78	85,84	51,98	±	0,29	4,11E-02
1100	280	3,708E-16	4,005E-16	2,131E-14	3,600E-13	69,4	11,73	87,95	51,75	±	0,40	3,57E-02
1100	400	3,893E-16	2,316E-16	1,750E-14	3,227E-13	64,2	11,84	89,67	52,23	±	0,88	2,51E-02
1100	800	7,172E-16	3,894E-16	2,497E-14	5,121E-13	58,5	12,00	92,14	52,92	±	0,34	2,96E-02
1200	15	1,812E-16	1,993E-16	1,563E-14	2,521E-13	78,6	12,68	93,68	55,89	±	0,33	2,42E-02
1230	15	2,278E-16	2,817E-16	1,820E-14	2,900E-13	76,6	12,21	95,48	53,87	±	0,36	2,94E-02
1260	15	1,630E-16	1,055E-16	1,672E-14	2,454E-13	80,2	11,77	97,13	51,95	±	0,26	1,20E-02
1290	15	1,108E-16	1,106E-16	1,414E-14	2,002E-13	83,5	11,81	98,52	52,13	±	0,27	1,49E-02
1320	15	6,995E-17	2,568E-17	9,464E-15	1,311E-13	84,0	11,64	99,46	51,40	±	0,56	5,16E-03
1350	15	4,369E-17	5,504E-17	3,719E-15	5,501E-14	76,4	11,29	99,82	49,87	±	0,67	2,81E-02
1450	30	7,731E-17	1,344E-17	1,800E-15	4,337E-14	47,2	11,38	100,00	50,24	±	1,48	1,42E-02
Total		9,221E-15	1,348E-14	1,013E-12	1,391E-11		11,01		48,65	±	0,24	

J= 0.002482±0.41%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17} mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

c)

Age spectrum data: 97046 K.Feldspar, 125-250 μm
Leucogranite, C/S fabric, Okanagan detachment, Trinity Hills, West Mable lake
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
450	15	2,162E-16	8,747E-17	1,874E-15	1,397E-13	54,2	40,44	0,24	167,61	±	3,33	8,87E-02
450	35	6,751E-17	4,440E-17	8,619E-16	2,856E-14	30,1	9,97	0,34	42,80	±	2,33	9,79E-02
500	35	4,225E-17	4,650E-17	1,769E-15	3,304E-14	62,1	11,60	0,57	49,68	±	0,93	4,99E-02
500	35	3,556E-17	6,706E-17	2,497E-15	3,663E-14	71,1	10,44	0,88	44,79	±	0,57	5,10E-02
550	15	5,868E-17	1,331E-16	4,737E-15	7,240E-14	75,9	11,60	1,47	49,70	±	0,44	5,34E-02
550	35	2,918E-17	1,556E-16	5,933E-15	7,146E-14	87,7	10,57	2,22	45,33	±	0,38	4,98E-02
600	15	8,875E-17	2,288E-16	8,722E-15	1,228E-13	78,5	11,05	3,31	47,38	±	0,16	4,98E-02
600	35	2,363E-17	2,609E-16	1,008E-14	1,163E-13	93,8	10,81	4,58	46,37	±	0,17	4,92E-02
650	15	7,929E-17	3,071E-16	1,271E-14	1,645E-13	85,6	11,07	6,17	47,45	±	0,20	4,59E-02
650	35	2,205E-17	2,434E-16	1,499E-14	1,693E-13	95,9	10,84	8,05	46,47	±	0,13	3,09E-02
700	15	4,595E-17	2,386E-16	1,620E-14	1,919E-13	92,7	10,98	10,08	47,09	±	0,17	2,80E-02
700	35	2,310E-17	2,360E-16	1,999E-14	2,246E-13	96,7	10,87	12,59	46,60	±	0,10	2,24E-02
750	15	5,908E-17	2,531E-16	1,969E-14	2,318E-13	92,3	10,86	15,06	46,59	±	0,17	2,44E-02
750	35	2,299E-17	2,178E-16	2,383E-14	2,666E-13	97,2	10,88	18,05	46,63	±	0,14	1,74E-02
800	15	7,118E-17	1,816E-16	2,007E-14	2,394E-13	91,0	10,86	20,57	46,55	±	0,22	1,72E-02
800	35	2,541E-17	1,856E-16	2,184E-14	2,452E-13	96,7	10,86	23,31	46,57	±	0,18	1,61E-02
850	15	8,287E-17	2,159E-16	1,917E-14	2,350E-13	89,4	10,95	25,71	46,96	±	0,18	2,14E-02
850	35	5,593E-17	1,966E-16	2,449E-14	2,835E-13	93,9	10,88	28,79	46,64	±	0,16	1,53E-02
900	15	1,881E-16	2,886E-16	1,968E-14	2,712E-13	79,3	10,93	31,25	46,87	±	0,26	2,79E-02
900	35	8,577E-17	2,175E-16	2,178E-14	2,640E-13	90,2	10,93	33,99	46,86	±	0,21	1,90E-02
950	15	3,444E-16	3,077E-16	1,876E-14	3,090E-13	66,9	11,02	36,34	47,26	±	0,29	3,12E-02
950	35	4,480E-17	2,100E-16	2,192E-14	2,555E-13	94,6	11,02	39,09	47,26	±	0,16	1,82E-02
950	70	6,554E-17	2,407E-16	2,460E-14	2,919E-13	93,1	11,05	42,18	47,38	±	0,24	1,86E-02
1000	15	6,127E-17	1,388E-16	1,211E-14	1,542E-13	88,1	11,21	43,70	48,07	±	0,23	2,18E-02
1000	35	6,169E-17	2,831E-16	1,862E-14	2,269E-13	91,8	11,18	46,03	47,91	±	0,18	2,89E-02
1050	15	8,800E-17	4,502E-16	1,852E-14	2,347E-13	88,7	11,25	48,36	48,21	±	0,23	4,62E-02

1050	35	1,136E-16	6,393E-16	2,681E-14	3,362E-13	89,8	11,26	51,72	48,28	±	0,22	4,53E-02
1050	70	1,819E-16	8,322E-16	3,302E-14	4,262E-13	87,2	11,25	55,86	48,24	±	0,18	4,79E-02
1100	15	1,271E-16	6,327E-16	1,532E-14	2,117E-13	82,1	11,35	57,78	48,62	±	0,35	7,85E-02
1100	35	1,985E-16	1,059E-15	2,557E-14	3,505E-13	83,1	11,39	60,99	48,82	±	0,18	7,87E-02
1100	70	2,596E-16	1,178E-15	3,190E-14	4,397E-13	82,4	11,36	64,99	48,67	±	0,20	7,01E-02
1100	120	2,722E-16	9,621E-16	3,148E-14	4,358E-13	81,4	11,27	68,94	48,29	±	0,25	5,81E-02
1100	180	2,497E-16	7,271E-16	2,781E-14	3,921E-13	81,0	11,42	72,43	48,95	±	0,20	4,97E-02
1100	280	2,990E-16	6,665E-16	2,760E-14	4,014E-13	77,8	11,32	75,89	48,52	±	0,28	4,59E-02
1100	400	3,549E-16	6,895E-16	2,607E-14	4,016E-13	73,7	11,36	79,17	48,67	±	0,28	5,02E-02
1100	800	5,950E-16	7,601E-16	3,525E-14	5,799E-13	69,5	11,44	83,59	49,02	±	0,26	4,10E-02
1200	15	1,114E-16	3,327E-16	2,263E-14	2,937E-13	88,6	11,49	86,43	49,25	±	0,15	2,79E-02
1230	15	1,526E-16	4,199E-16	3,269E-14	4,229E-13	89,1	11,53	90,53	49,40	±	0,12	2,44E-02
1260	15	1,248E-16	2,695E-16	3,491E-14	4,391E-13	91,4	11,50	94,91	49,25	±	0,16	1,47E-02
1290	15	8,346E-17	1,599E-16	2,790E-14	3,472E-13	92,7	11,53	98,41	49,41	±	0,16	1,09E-02
1320	15	4,556E-17	7,360E-17	9,491E-15	1,216E-13	88,7	11,37	99,60	48,73	±	0,27	1,47E-02
1350	15	2,677E-17	4,248E-17	1,733E-15	2,872E-14	72,3	11,98	99,82	51,31	±	0,97	4,66E-02
1450	30	6,625E-17	5,835E-17	1,455E-15	3,686E-14	46,8	11,86	100,00	50,78	±	1,54	7,62E-02
Total		5,252E-15	1,494E-14	7,971E-13	1,055E-11		11,26		48,25	±	0,22	

J= 0.002408±0.79%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17} mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

d)

Age spectrum data: 97049 K.Feldspar, 251-500 µm
Leucogranite sill deformed with the major foliation, overprinted by Okanagan detachment, Trinity Hills
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cumul. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
450	15	1,648E-15	6,366E-17	1,408E-15	5,526E-13	11,9	46,64	0,15	194,55	±	15,37	8,59E-02
450	35	3,888E-16	2,646E-17	5,896E-16	1,202E-13	4,4	8,89	0,21	38,75	±	8,47	8,53E-02
500	35	1,073E-16	1,192E-17	8,040E-16	4,121E-14	23,0	11,80	0,30	51,25	±	3,21	2,82E-02
500	35	8,851E-17	1,279E-17	1,121E-15	3,723E-14	29,7	9,85	0,42	42,88	±	2,01	2,17E-02
550	15	7,007E-17	5,441E-17	2,183E-15	4,510E-14	54,0	11,15	0,65	48,46	±	0,80	4,74E-02
550	35	3,956E-17	4,415E-17	2,996E-15	4,134E-14	71,5	9,87	0,97	42,96	±	0,68	2,80E-02
600	15	4,616E-17	8,621E-17	4,789E-15	6,537E-14	79,0	10,78	1,48	46,85	±	0,41	3,42E-02
600	35	2,307E-17	4,484E-17	6,123E-15	7,093E-14	90,2	10,44	2,13	45,43	±	0,24	1,39E-02
650	15	4,789E-17	9,750E-17	8,189E-15	1,029E-13	86,0	10,82	3,00	47,03	±	0,26	2,26E-02
650	35	1,525E-17	1,120E-16	1,039E-14	1,150E-13	95,8	10,60	4,11	46,10	±	0,20	2,05E-02
700	15	4,843E-17	1,244E-16	1,211E-14	1,457E-13	90,0	10,83	5,40	47,06	±	0,21	1,95E-02
700	35	1,418E-17	1,169E-16	1,551E-14	1,690E-13	97,3	10,60	7,05	46,10	±	0,10	1,43E-02
750	15	2,725E-17	1,684E-16	1,665E-14	1,875E-13	95,5	10,75	8,83	46,75	±	0,13	1,92E-02
750	35	1,708E-17	1,140E-16	2,165E-14	2,348E-13	97,6	10,59	11,14	46,04	±	0,12	1,00E-02
800	15	2,555E-17	1,069E-16	2,053E-14	2,285E-13	96,5	10,74	13,32	46,68	±	0,13	9,89E-03
800	35	1,782E-17	8,789E-17	2,560E-14	2,793E-13	97,9	10,68	16,05	46,43	±	0,15	6,52E-03
850	15	2,733E-17	1,363E-16	2,129E-14	2,358E-13	96,3	10,67	18,32	46,39	±	0,16	1,22E-02
850	35	1,411E-17	9,476E-17	2,589E-14	2,812E-13	98,3	10,67	21,08	46,40	±	0,14	6,95E-03
900	15	2,512E-17	1,255E-16	1,984E-14	2,210E-13	96,4	10,74	23,19	46,69	±	0,12	1,20E-02
900	35	1,867E-17	9,639E-17	2,429E-14	2,667E-13	97,7	10,72	25,78	46,63	±	0,11	7,54E-03
950	15	3,934E-17	1,123E-16	1,854E-14	2,132E-13	94,3	10,85	27,75	47,15	±	0,11	1,15E-02
950	35	2,932E-17	1,069E-16	2,381E-14	2,667E-13	96,5	10,81	30,29	47,01	±	0,13	8,53E-03
950	70	4,693E-17	9,403E-17	2,682E-14	3,068E-13	95,2	10,90	33,15	47,36	±	0,18	6,66E-03
1000	15	4,811E-17	6,613E-17	1,296E-14	1,589E-13	90,8	11,14	34,53	48,41	±	0,17	9,70E-03
1000	35	5,049E-17	6,166E-17	2,113E-14	2,471E-13	93,7	10,96	36,78	47,64	±	0,15	5,54E-03
1050	15	9,192E-17	1,273E-16	2,227E-14	2,780E-13	90,0	11,23	39,15	48,81	±	0,24	1,09E-02

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1050	35	9,064E-17	1,195E-16	3,146E-14	3,750E-13	92,6	11,04	42,51	48,00	±	0,15	7,22E-03
1050	70	1,281E-16	1,728E-16	3,959E-14	4,763E-13	91,8	11,05	46,72	48,01	±	0,12	8,29E-03
1100	15	1,123E-16	1,738E-16	2,188E-14	2,827E-13	88,1	11,38	49,06	49,43	±	0,27	1,51E-02
1100	35	1,170E-16	2,796E-16	3,045E-14	3,747E-13	90,6	11,15	52,30	48,44	±	0,16	1,74E-02
1100	70	1,474E-16	2,843E-16	3,874E-14	4,753E-13	90,6	11,12	56,43	48,32	±	0,14	1,39E-02
1100	120	1,653E-16	3,020E-16	4,146E-14	5,130E-13	90,3	11,17	60,84	48,55	±	0,13	1,38E-02
1100	180	1,787E-16	3,194E-16	4,032E-14	5,070E-13	89,4	11,24	65,14	48,84	±	0,16	1,51E-02
1100	280	2,198E-16	2,033E-16	4,127E-14	5,311E-13	87,6	11,27	69,54	48,97	±	0,21	9,36E-03
1100	400	2,917E-16	2,039E-16	4,014E-14	5,434E-13	83,9	11,37	73,81	49,38	±	0,14	9,65E-03
1100	800	4,898E-16	1,622E-16	5,507E-14	7,748E-13	81,1	11,42	79,68	49,59	±	0,22	5,60E-03
1200	15	6,826E-17	7,098E-17	1,420E-14	1,855E-13	88,9	11,62	81,19	50,47	±	0,21	9,50E-03
1230	15	1,217E-16	1,026E-16	2,247E-14	2,954E-13	87,6	11,52	83,59	50,04	±	0,19	8,68E-03
1260	15	1,677E-16	8,170E-17	3,661E-14	4,692E-13	89,2	11,43	87,49	49,67	±	0,11	4,24E-03
1290	15	1,991E-16	7,867E-17	4,803E-14	6,105E-13	90,2	11,46	92,61	49,78	±	0,14	3,11E-03
1320	15	2,119E-16	8,768E-17	4,711E-14	6,025E-13	89,4	11,43	97,62	49,67	±	0,14	3,54E-03
1350	15	7,351E-17	1,535E-17	1,572E-14	2,023E-13	89,1	11,46	99,30	49,79	±	0,16	1,86E-03
1450	30	5,176E-17	1,586E-17	6,579E-15	9,131E-14	83,1	11,53	100,00	50,07	±	0,31	4,58E-03
Total		5,850E-15	4,967E-15	9,386E-13	1,222E-11		11,15		48,47	±	0,20	

J= 0.0024416±1.05%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17}-mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

e)

Age spectrum data: 97067 K.Feldspar, 125-250 µm
Leucogranite sill deformed with the major foliation, overprinted by Okanagan detachment, South Sicamous
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
450	15	3,562E-16	3,030E-17	1,632E-15	2,217E-13	52,5	71,31	0,16	293,49	±	5,10	3,53E-02
450	35	3,541E-17	5,802E-18	5,099E-16	1,637E-14	36,0	11,56	0,21	50,92	±	2,70	2,16E-02
500	35	5,290E-17	9,515E-19	1,031E-15	3,209E-14	51,2	15,94	0,31	69,88	±	1,78	1,75E-03
500	35	2,969E-17	2,634E-17	1,262E-15	2,130E-14	58,7	9,90	0,44	43,73	±	1,37	3,96E-02
550	15	1,057E-16	4,640E-17	3,271E-15	8,099E-14	61,3	15,18	0,76	66,62	±	0,90	2,70E-02
550	35	2,177E-17	9,961E-17	3,720E-15	4,262E-14	84,7	9,70	1,13	42,86	±	0,39	5,09E-02
600	15	6,862E-17	2,479E-16	7,391E-15	1,023E-13	80,0	11,07	1,86	48,82	±	0,34	6,37E-02
600	35	1,628E-17	3,162E-16	9,616E-15	1,011E-13	95,0	9,99	2,82	44,11	±	0,12	6,25E-02
650	15	5,828E-17	4,302E-16	1,389E-14	1,629E-13	89,2	10,46	4,19	46,16	±	0,19	5,88E-02
650	35	1,845E-17	3,806E-16	1,607E-14	1,659E-13	96,5	9,96	5,79	43,97	±	0,13	4,50E-02
700	15	4,168E-17	3,230E-16	1,899E-14	2,064E-13	93,8	10,20	7,67	45,01	±	0,11	3,23E-02
700	35	1,865E-17	2,288E-16	2,289E-14	2,364E-13	97,4	10,06	9,93	44,40	±	0,11	1,90E-02
750	15	3,417E-17	1,623E-16	2,328E-14	2,464E-13	95,7	10,12	12,24	44,68	±	0,13	1,32E-02
750	35	1,719E-17	1,705E-16	2,859E-14	2,944E-13	98,0	10,10	15,07	44,56	±	0,10	1,13E-02
800	15	2,150E-17	6,656E-17	2,591E-14	2,705E-13	97,4	10,17	17,64	44,88	±	0,13	4,88E-03
800	35	1,532E-17	1,588E-16	3,258E-14	3,355E-13	98,4	10,13	20,87	44,73	±	0,12	9,26E-03
850	15	1,607E-17	1,130E-16	2,546E-14	2,641E-13	97,9	10,16	23,39	44,85	±	0,14	8,43E-03
850	35	1,411E-17	1,158E-16	3,057E-14	3,162E-13	98,4	10,18	26,42	44,93	±	0,15	7,19E-03
900	15	1,743E-17	9,897E-17	2,099E-14	2,193E-13	97,4	10,18	28,50	44,92	±	0,19	8,96E-03
900	35	1,611E-17	1,029E-16	2,558E-14	2,657E-13	98,0	10,17	31,03	44,90	±	0,20	7,65E-03
950	15	2,468E-17	7,364E-17	1,703E-14	1,817E-13	95,7	10,22	32,72	45,09	±	0,22	8,22E-03
950	35	2,899E-17	1,187E-16	2,065E-14	2,196E-13	95,9	10,19	34,77	45,00	±	0,17	1,09E-02
950	70	5,650E-17	8,903E-17	2,080E-14	2,281E-13	92,4	10,14	36,83	44,74	±	0,16	8,13E-03
1000	15	5,037E-17	9,336E-17	9,350E-15	1,111E-13	86,4	10,27	37,75	45,31	±	0,34	1,90E-02
1000	35	5,079E-17	5,866E-17	1,500E-14	1,703E-13	91,0	10,33	39,24	45,57	±	0,30	7,43E-03
1050	15	7,996E-17	1,207E-16	1,466E-14	1,769E-13	86,4	10,43	40,69	46,03	±	0,23	1,56E-02

1050	35	8,623E-17	1,241E-16	2,121E-14	2,456E-13	89,4	10,35	42,79	45,67	±	0,22	1,11E-02
1050	70	1,215E-16	1,493E-16	2,656E-14	3,109E-13	88,2	10,33	45,42	45,58	±	0,18	1,07E-02
1100	15	6,415E-17	1,252E-16	1,282E-14	1,552E-13	87,6	10,60	46,69	46,78	±	0,26	1,86E-02
1100	35	7,319E-17	1,174E-16	1,968E-14	2,272E-13	90,3	10,42	48,64	45,98	±	0,28	1,13E-02
1100	70	9,755E-17	1,221E-16	2,587E-14	3,002E-13	90,2	10,47	51,21	46,18	±	0,22	8,97E-03
1100	120	1,113E-16	1,126E-16	2,818E-14	3,292E-13	89,8	10,49	54,00	46,28	±	0,13	7,59E-03
1100	180	1,245E-16	1,012E-16	2,777E-14	3,318E-13	88,7	10,59	56,75	46,74	±	0,15	6,92E-03
1100	280	1,748E-16	1,050E-16	2,964E-14	3,634E-13	85,6	10,49	59,69	46,30	±	0,14	6,73E-03
1100	400	2,132E-16	5,901E-17	2,998E-14	3,842E-13	83,4	10,69	62,66	47,14	±	0,15	3,74E-03
1100	800	4,304E-16	2,258E-16	4,581E-14	6,154E-13	79,1	10,63	67,19	46,90	±	0,18	9,37E-03
1200	15	6,870E-17	1,039E-16	1,993E-14	2,363E-13	91,2	10,81	69,17	47,68	±	0,23	9,90E-03
1230	15	1,241E-16	4,480E-17	3,740E-14	4,374E-13	91,4	10,69	72,87	47,14	±	0,16	2,28E-03
1260	15	1,991E-16	1,758E-16	6,889E-14	7,949E-13	92,4	10,66	79,70	47,01	±	0,12	4,85E-03
1290	15	2,584E-16	2,510E-16	9,970E-14	1,136E-12	93,0	10,60	89,58	46,78	±	0,09	4,78E-03
1320	15	2,034E-16	1,447E-16	8,097E-14	9,244E-13	93,3	10,65	97,60	46,97	±	0,12	3,40E-03
1350	15	6,622E-17	4,913E-17	2,142E-14	2,488E-13	91,9	10,68	99,72	47,09	±	0,19	4,36E-03
1450	30	4,543E-17	1,709E-18	2,815E-15	4,578E-14	70,5	11,47	100,00	50,55	±	0,77	1,15E-03
Total		3,729E-15	5,692E-15	1,009E-12	1,178E-11		10,55		46,54	±	0,17	

J= 0.002477±0.5%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17}-mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

f)

Age spectrum data: 97070 K.Feldspar, 250-500 µm
Deformed leucogranite sill, overprinted by the Columbia detachment, Revelstoke dam, West of Columbia river
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
450	15	3,709E-16	1,715E-18	2,648E-15	1,808E-13	39,3	26,85	0,25	116,47	±	3,96	1,23E-03
450	35	9,278E-17	2,246E-17	1,564E-15	3,420E-14	19,7	4,31	0,40	19,22	±	1,29	2,73E-02
500	35	7,799E-17	8,989E-18	3,529E-15	6,206E-14	62,7	11,03	0,74	48,76	±	0,70	4,84E-03
500	35	3,381E-17	7,637E-18	4,173E-15	3,311E-14	69,5	5,51	1,14	24,54	±	0,39	3,48E-03
550	15	5,933E-17	1,016E-18	9,009E-15	9,057E-14	80,4	8,08	2,01	35,85	±	0,24	2,14E-04
550	35	2,015E-17	2,398E-17	1,103E-14	7,485E-14	91,7	6,22	3,07	27,67	±	0,21	4,13E-03
600	15	5,704E-17	7,724E-17	1,744E-14	1,403E-13	87,7	7,05	4,74	31,32	±	0,14	8,41E-03
600	35	1,817E-17	7,573E-17	2,052E-14	1,431E-13	95,9	6,69	6,71	29,72	±	0,11	7,01E-03
650	15	3,660E-17	7,974E-17	2,563E-14	1,989E-13	94,2	7,31	9,17	32,48	±	0,09	5,91E-03
650	35	1,488E-17	9,416E-17	3,004E-14	2,183E-13	97,6	7,09	12,05	31,51	±	0,09	5,96E-03
700	15	2,889E-17	6,007E-17	3,082E-14	2,354E-13	96,0	7,33	15,01	32,57	±	0,08	3,70E-03
700	35	1,195E-17	5,481E-17	3,492E-14	2,609E-13	98,3	7,34	18,36	32,62	±	0,07	2,98E-03
750	15	2,680E-17	6,125E-17	3,069E-14	2,381E-13	96,3	7,47	21,30	33,18	±	0,07	3,79E-03
750	35	1,577E-17	4,665E-17	3,304E-14	2,538E-13	97,8	7,51	24,47	33,35	±	0,08	2,68E-03
800	15	2,858E-17	6,173E-17	2,447E-14	1,957E-13	95,4	7,63	26,82	33,85	±	0,13	4,79E-03
800	35	1,851E-17	4,820E-17	2,539E-14	1,993E-13	96,9	7,61	29,26	33,77	±	0,14	3,61E-03
850	15	1,728E-17	1,705E-17	1,749E-14	1,402E-13	96,0	7,70	30,93	34,17	±	0,15	1,85E-03
850	35	1,904E-17	1,742E-18	1,963E-14	1,553E-13	96,0	7,60	32,82	33,72	±	0,14	1,69E-04
900	15	2,639E-17	1,743E-18	1,444E-14	1,192E-13	93,1	7,69	34,20	34,12	±	0,26	2,29E-04
900	35	2,175E-17	7,722E-17	1,866E-14	1,482E-13	95,3	7,57	35,99	33,61	±	0,18	7,86E-03
950	15	3,685E-17	1,348E-16	1,487E-14	1,248E-13	91,0	7,64	37,42	33,91	±	0,16	1,72E-02
950	35	2,847E-17	6,447E-17	2,092E-14	1,701E-13	94,7	7,70	39,43	34,19	±	0,15	5,85E-03
950	70	3,916E-17	7,259E-17	2,516E-14	2,088E-13	94,1	7,81	41,84	34,67	±	0,11	5,48E-03
1000	15	2,326E-17	2,557E-17	1,118E-14	9,591E-14	92,5	7,93	42,91	35,21	±	0,23	4,34E-03
1000	35	3,472E-17	8,786E-17	1,943E-14	1,660E-13	93,5	7,99	44,78	35,45	±	0,15	8,59E-03
1050	15	4,922E-17	1,640E-16	1,773E-14	1,567E-13	90,4	7,99	46,48	35,46	±	0,16	1,76E-02

1050	35	6,525E-17	1,174E-16	2,800E-14	2,474E-13	91,9	8,12	49,17	36,03	±	0,13	7,97E-03
1050	70	9,656E-17	1,797E-16	3,612E-14	3,253E-13	90,9	8,19	52,63	36,33	±	0,12	9,45E-03
1100	15	5,168E-17	1,388E-16	1,487E-14	1,404E-13	88,8	8,39	54,06	37,20	±	0,21	1,77E-02
1100	35	7,845E-17	2,210E-16	2,544E-14	2,387E-13	90,0	8,45	56,50	37,46	±	0,17	1,65E-02
1100	70	1,219E-16	1,664E-16	3,483E-14	3,311E-13	88,8	8,44	59,84	37,45	±	0,14	9,08E-03
1100	120	1,658E-16	2,070E-16	3,900E-14	3,851E-13	87,0	8,59	63,58	38,10	±	0,13	1,01E-02
1100	180	2,032E-16	1,465E-16	3,859E-14	3,987E-13	84,7	8,75	67,29	38,79	±	0,13	7,21E-03
1100	280	2,607E-16	1,340E-16	4,001E-14	4,316E-13	81,9	8,84	71,13	39,17	±	0,13	6,37E-03
1100	400	3,361E-16	1,934E-16	3,888E-14	4,473E-13	77,6	8,92	74,86	39,55	±	0,16	9,45E-03
1100	800	5,308E-16	2,727E-16	5,103E-14	6,156E-13	74,3	8,96	79,75	39,73	±	0,26	1,02E-02
1200	15	8,749E-17	1,397E-16	1,294E-14	1,431E-13	81,7	9,04	80,99	40,05	±	0,29	2,05E-02
1230	15	1,205E-16	8,746E-17	2,114E-14	2,277E-13	84,1	9,06	83,02	40,16	±	0,17	7,86E-03
1260	15	1,396E-16	1,600E-16	3,813E-14	3,907E-13	89,2	9,14	86,68	40,49	±	0,15	7,97E-03
1290	15	1,972E-16	1,693E-17	6,124E-14	6,236E-13	90,4	9,20	92,56	40,78	±	0,10	5,25E-04
1320	15	1,712E-16	8,257E-17	4,905E-14	5,050E-13	89,7	9,24	97,26	40,93	±	0,12	3,20E-03
1350	15	7,701E-17	5,011E-18	2,075E-14	2,169E-13	89,3	9,33	99,25	41,34	±	0,22	4,59E-04
1450	30	1,177E-16	1,825E-18	7,780E-15	1,113E-13	68,6	9,81	100,00	43,44	±	0,49	4,46E-04
Total		4,030E-15	3,643E-15	1,042E-12	9,824E-12		8,26		36,63	±	0,16	

J= 0.00248±1.02%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17}-mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

g)

Age spectrum data: 97091 K.Feldspar, 125-250 µm
Leucogranite sill deformed with the major foliation, Victor lake, TC1
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}Ar_K}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 σ (Ma)	Ca/K
450	15	5,189E-16	1,970E-18	1,571E-15	1,836E-13	16,5	19,25	0,21	85,93	±	####	0,00238
450	35	7,183E-17	1,999E-18	6,666E-16	5,051E-14	57,9	43,91	0,30	190,30	±	4,55	0,0057
500	35	1,633E-17	6,387E-17	8,254E-16	3,240E-14	85,1	33,39	0,41	146,52	±	2,16	0,147
500	35	2,358E-17	5,603E-17	1,190E-15	2,866E-14	75,6	18,21	0,56	81,36	±	1,07	0,0895
550	15	3,671E-17	3,755E-17	2,492E-15	1,172E-13	90,7	42,64	0,90	185,07	±	0,85	0,0286
550	35	2,133E-17	8,488E-17	3,167E-15	4,867E-14	86,9	13,36	1,32	60,04	±	0,53	0,0509
600	15	7,505E-17	2,093E-16	5,909E-15	2,617E-13	91,5	40,51	2,10	176,27	±	0,54	0,0673
600	35	1,744E-17	3,574E-16	7,469E-15	8,955E-14	94,1	11,28	3,09	50,83	±	0,24	0,0909
650	15	6,733E-17	4,803E-16	1,075E-14	3,058E-13	93,4	26,57	4,52	117,54	±	0,42	0,0849
650	35	1,500E-17	3,251E-16	1,137E-14	1,253E-13	96,2	10,60	6,03	47,82	±	0,12	0,0543
700	15	5,822E-17	2,088E-16	1,287E-14	2,955E-13	94,1	21,60	7,74	96,11	±	0,24	0,0308
700	35	1,581E-17	1,889E-16	1,381E-14	1,490E-13	96,6	10,43	9,57	47,03	±	0,18	0,026
750	15	4,142E-17	9,730E-17	1,370E-14	2,415E-13	94,8	16,71	11,39	74,80	±	0,25	0,0135
750	35	1,405E-17	4,084E-17	1,553E-14	1,658E-13	97,2	10,38	13,45	46,83	±	0,14	0,005
800	15	3,138E-17	2,451E-17	1,497E-14	2,219E-13	95,6	14,17	15,44	63,65	±	0,33	0,00311
800	35	1,771E-17	1,079E-16	1,677E-14	1,781E-13	96,8	10,28	17,66	46,40	±	0,19	0,0122
850	15	2,093E-17	1,608E-17	1,352E-14	1,652E-13	96,0	11,74	19,46	52,87	±	0,20	0,00226
850	35	1,696E-17	5,559E-17	1,635E-14	1,796E-13	97,0	10,65	21,63	48,05	±	0,18	0,00646
900	15	1,348E-17	1,053E-16	1,262E-14	1,402E-13	96,9	10,77	23,30	48,57	±	0,21	0,0159
900	35	1,537E-17	1,005E-16	1,665E-14	1,809E-13	97,2	10,57	25,51	47,66	±	0,22	0,0115
950	15	2,124E-17	6,948E-17	1,329E-14	1,678E-13	96,1	12,13	27,28	54,63	±	0,18	0,00994
950	35	2,498E-17	6,133E-17	1,885E-14	2,121E-13	96,3	10,83	29,78	48,84	±	0,15	0,00618
950	70	3,778E-17	1,402E-16	2,254E-14	2,706E-13	95,7	11,48	32,77	51,74	±	0,16	0,0118
1000	15	3,632E-17	3,240E-17	1,011E-14	1,582E-13	93,0	14,55	34,11	65,33	±	0,29	0,00609
1000	35	4,375E-17	8,032E-17	1,659E-14	2,328E-13	94,3	13,22	36,32	59,45	±	0,29	0,0092
1050	15	7,449E-17	5,822E-17	1,542E-14	2,826E-13	92,1	16,87	38,36	75,50	±	0,28	0,00717

1050	35	7,066E-17	1,107E-16	2,212E-14	3,372E-13	93,6	14,27	41,30	64,09	±	0,28	0,00951
1050	70	1,010E-16	9,321E-17	2,678E-14	4,619E-13	93,4	16,11	44,85	72,16	±	0,25	0,00661
1100	15	9,328E-17	1,564E-16	1,380E-14	3,517E-13	92,1	23,47	46,69	104,19	±	0,31	0,0215
1100	35	1,103E-16	1,242E-16	2,251E-14	4,653E-13	92,9	19,19	49,67	85,67	±	0,33	0,0105
1100	70	1,662E-16	1,626E-16	2,996E-14	6,571E-13	92,4	20,27	53,65	90,34	±	0,22	0,0103
1100	120	1,539E-16	1,648E-16	2,491E-14	5,494E-13	91,6	20,21	56,96	90,07	±	0,25	0,0126
1100	180	1,619E-16	1,412E-16	2,261E-14	5,115E-13	90,5	20,48	59,96	91,26	±	0,28	0,0119
1100	280	2,054E-16	8,988E-17	2,425E-14	5,706E-13	89,2	21,00	63,18	93,51	±	0,23	0,00704
1100	400	2,448E-16	1,318E-16	2,306E-14	5,582E-13	86,9	21,05	66,24	93,72	±	0,29	0,0109
1100	800	4,328E-16	1,394E-16	3,233E-14	8,136E-13	84,2	21,19	70,53	94,33	±	0,33	0,00819
1200	15	1,264E-16	4,641E-17	1,678E-14	5,368E-13	93,0	29,74	72,76	131,07	±	0,43	0,00526
1230	15	2,113E-16	7,289E-17	3,313E-14	9,357E-13	93,2	26,33	77,15	116,51	±	0,30	0,00418
1260	15	2,594E-16	1,081E-16	6,547E-14	1,574E-12	95,0	22,84	85,85	101,51	±	2,93	0,00314
1290	15	2,594E-16	1,082E-16	6,547E-14	1,574E-12	95,0	22,84	94,54	101,51	±	2,93	0,00314
1320	15	2,075E-16	1,103E-16	3,352E-14	9,028E-13	93,1	25,08	98,98	111,14	±	0,27	0,00625
1350	15	3,535E-17	1,951E-17	5,370E-15	1,518E-13	93,0	26,30	99,70	116,38	±	0,43	0,0069
1450	30	6,857E-17	2,170E-18	2,281E-15	7,005E-14	71,0	21,80	100,00	96,99	±	1,34	0,00181
Total		4,256E-15	4,788E-15	7,533E-13	1,551E-11		18,89		84,33	±	1,47	

J= 0.002534 ± 0.260%

λ_{K40}= 5.543x10^{-10} a^{-1}

VG3600, Sensitivity: 3.1x10^{-17}-mol/mV

(^{36}Ar/^{37}Ar)$_{Ca}$=3.50x10^{-4}

(^{39}Ar/^{37}Ar)$_{Ca}$=7.86x10^{-4}

(^{40}Ar/^{39}Ar)$_{K}$=2.70x10^{-2}

h)

Age spectrum data: 97106 K.Feldspar,178-250 mm
Mylonitic leucogranite in Columbia detachment zone, East of Mt Hall
Can ANU#31, irradiated in HIFAR for 140 hours

Temp. (°C)	Time (mn)	^{36}Ar (mol)	^{37}Ar (mol)	^{39}Ar (mol)	^{40}Ar (mol)	% Ar40*	$\frac{^{40*}Ar}{^{39}ArK}$	Cum. ^{39}Ar (%)	Age (Ma)	±	1 s (Ma)	Ca/K
450	15	6,688E-16	9,021E-17	2,453E-15	2,575E-13	23,2	24,40	0,32	107,67	±	3,58	6,99E-02
450	35	1,551E-16	1,706E-17	1,591E-15	5,707E-14	19,6	7,04	0,53	31,71	±	1,44	2,04E-02
500	35	5,939E-17	1,665E-17	2,935E-15	3,750E-14	53,0	6,77	0,92	30,53	±	0,48	1,08E-02
500	35	4,939E-17	5,157E-17	4,213E-15	4,032E-14	63,5	6,08	1,48	27,43	±	0,31	2,33E-02
550	15	3,065E-17	1,164E-16	7,178E-15	6,320E-14	85,4	7,52	2,43	33,86	±	0,19	3,08E-02
550	35	2,640E-17	2,222E-16	8,627E-15	6,503E-14	87,7	6,61	3,57	29,80	±	0,28	4,89E-02
600	15	2,044E-17	4,483E-16	1,040E-14	8,462E-14	92,6	7,53	4,94	33,93	±	0,16	8,19E-02
600	35	1,666E-17	6,265E-16	1,071E-14	8,207E-14	93,7	7,18	6,36	32,37	±	0,16	1,11E-01
650	15	2,131E-17	1,120E-15	1,028E-14	8,693E-14	92,6	7,83	7,72	35,24	±	0,17	2,07E-01
650	35	1,531E-17	9,724E-16	1,043E-14	8,163E-14	94,2	7,38	9,10	33,24	±	0,16	1,77E-01
700	15	1,535E-17	9,463E-16	9,252E-15	7,685E-14	93,9	7,80	10,32	35,12	±	0,16	1,94E-01
700	35	1,219E-17	4,970E-16	9,742E-15	7,704E-14	95,0	7,52	11,61	33,85	±	0,14	9,69E-02
750	15	1,304E-17	2,542E-16	8,104E-15	6,691E-14	94,0	7,76	12,68	34,92	±	0,16	5,96E-02
750	35	1,291E-17	1,792E-16	8,703E-15	7,040E-14	94,3	7,63	13,83	34,34	±	0,17	3,91E-02
800	15	1,511E-17	1,448E-16	6,805E-15	5,829E-14	92,1	7,89	14,73	35,50	±	0,39	4,04E-02
800	35	1,681E-17	1,711E-16	7,658E-15	6,640E-14	92,2	8,00	15,74	36,00	±	0,29	4,25E-02
850	15	1,655E-17	5,859E-17	6,161E-15	5,844E-14	91,4	8,67	16,56	38,98	±	0,31	1,81E-02
850	35	2,153E-17	6,251E-17	8,485E-15	8,118E-14	91,9	8,79	17,68	39,53	±	0,28	1,40E-02
900	15	1,906E-17	1,073E-16	7,738E-15	8,346E-14	93,0	10,03	18,70	45,04	±	0,43	2,63E-02
900	35	2,016E-17	7,498E-17	1,118E-14	1,180E-13	94,7	9,99	20,18	44,86	±	0,20	1,27E-02
950	15	2,411E-17	1,607E-16	1,087E-14	1,345E-13	94,5	11,70	21,62	52,41	±	0,29	2,81E-02
950	35	2,771E-17	1,944E-16	1,597E-14	1,888E-13	95,4	11,28	23,73	50,58	±	0,29	2,31E-02
950	70	5,364E-17	1,749E-16	2,114E-14	2,619E-13	93,7	11,62	26,53	52,05	±	0,21	1,57E-02
1000	15	4,063E-17	1,092E-16	1,243E-14	1,803E-13	93,2	13,52	28,17	60,43	±	0,25	1,67E-02
1000	35	4,946E-17	1,279E-16	1,869E-14	2,488E-13	93,9	12,50	30,64	55,97	±	0,19	1,30E-02
1050	15	7,428E-17	3,432E-16	2,237E-14	3,409E-13	93,4	14,23	33,60	63,56	±	0,25	2,91E-02

1050	35	7,063E-17	2,434E-16	2,901E-14	4,106E-13	94,7	13,41	37,44	59,94	±	0,21	1,59E-02
1050	70	1,047E-16	2,832E-16	3,708E-14	5,500E-13	94,2	13,97	42,34	62,43	±	0,19	1,45E-02
1100	15	7,547E-17	3,052E-16	2,156E-14	3,610E-13	93,7	15,69	45,19	69,93	±	0,25	2,69E-02
1100	35	8,892E-17	2,172E-16	2,854E-14	4,483E-13	94,0	14,76	48,96	65,89	±	0,20	1,45E-02
1100	70	1,300E-16	3,707E-16	3,824E-14	6,220E-13	93,7	15,23	54,02	67,96	±	0,35	1,84E-02
1100	120	1,534E-16	3,032E-16	3,976E-14	6,683E-13	93,1	15,64	59,28	69,74	±	0,17	1,45E-02
1100	180	1,844E-16	2,545E-16	3,844E-14	6,694E-13	91,7	15,97	64,36	71,18	±	0,21	1,26E-02
1100	280	2,313E-16	3,066E-16	3,870E-14	7,000E-13	90,1	16,29	69,48	72,59	±	0,19	1,51E-02
1100	400	2,914E-16	2,933E-16	3,635E-14	6,908E-13	87,4	16,61	74,29	73,95	±	0,27	1,53E-02
1100	800	4,850E-16	3,399E-16	4,505E-14	9,045E-13	84,0	16,87	80,24	75,11	±	0,24	1,43E-02
1200	15	1,342E-16	1,187E-16	3,108E-14	6,176E-13	93,4	18,57	84,35	82,51	±	0,23	7,26E-03
1230	15	1,742E-16	3,246E-16	3,861E-14	7,403E-13	92,9	17,82	89,46	79,23	±	0,18	1,60E-02
1260	15	1,824E-16	2,475E-16	4,242E-14	8,233E-13	93,3	18,11	95,07	80,52	±	0,25	1,11E-02
1290	15	1,114E-16	1,855E-16	2,597E-14	4,978E-13	93,3	17,88	98,50	79,50	±	0,22	1,36E-02
1320	15	3,647E-17	4,395E-17	8,799E-15	1,633E-13	93,3	17,31	99,66	77,03	±	0,30	9,49E-03
1350	15	1,674E-17	2,305E-18	1,638E-15	3,161E-14	84,2	16,25	99,88	72,42	±	0,99	2,67E-03
1450	30	7,043E-17	1,221E-16	9,073E-16	4,300E-14	51,6	24,44	100,00	107,84	±	2,36	2,56E-01
Total		4,037E-15	1,125E-14	7,562E-13	1,191E-11		14,15		63,19	±	0,25	

J= 0.002520±0.41%

$\lambda K40 = 5.543\xi 10{-}10\ \alpha{-}1$

VG3600, Sensitivity: 3.1x10-17 mol/mV

(36Ar/37Ar)Ca=3.50x10-4

(39Ar/37Ar)Ca=7.86x10-4

(40Ar/39Ar)K=2.70x10-2

Table DR5 : K-feldspar, domain size distribution

Domain #	log D_0 cm^2/s	volume fraction	Domain size (relative to r_0)
K-feldspar 97013, Ea = 57.6 Kcal/mol			
1	7,79	0,01961	0,00001
2	6,53	0,03135	0,00013
3	5,56	0,20236	0,00037
4	4,55	0,13849	0,00093
5	3,60	0,36247	0,00265
6	2,64	0,11958	0,01017
7	1,88	0,06784	0,06507
8	1,55	0,05831	1,00000
K-feldspar 97025, Ea = 48.06 Kcal/mol			
1	6,83	0,11599	0,00021
2	5,65	0,23236	0,00083
3	4,13	0,17934	0,00480
4	3,46	0,25692	0,01039
5	2,39	0,16025	0,03530
6	-0,51	0,05514	1,00000
K-feldspar 97046, Ea = 46.1 Kcal/mol			
1	7,30	0,04990	0,00010
2	5,98	0,10891	0,00045
3	4,83	0,13747	0,00168
4	3,40	0,16421	0,00877
5	2,86	0,16922	0,01623
6	1,79	0,31573	0,05588
7	-0,72	0,05455	1,00000
K-feldspar 97049, Ea = 39.86 Kcal/mol			
1	4,69	0,06317	0,00013
2	3,75	0,13045	0,00037
3	2,14	0,26860	0,00239
4	1,32	0,14672	0,00612
5	0,65	0,34821	0,01327
6	-3,10	0,04286	1,00000
K-feldspar 97067, Ea = 51.34 Kcal/mol			
1	8,56	0,02487	0,00061
2	7,56	0,04832	0,00195
3	6,75	0,06851	0,00496
4	6,27	0,05901	0,00869
5	5,71	0,08796	0,01657
6	4,79	0,03537	0,04743
7	4,13	0,08430	0,10183
8	3,65	0,06512	0,17714
9	2,14	0,52655	1,00000
K-feldspar 97070, Ea = 48.32 Kcal/mol			
1	8,54	0,02345	0,00046
2	7,61	0,05751	0,00135
3	6,84	0,09404	0,00328
4	6,12	0,08999	0,00745
5	5,25	0,05377	0,02043
6	4,14	0,04640	0,07337
7	3,52	0,12832	0,14906
8	2,83	0,12180	0,33225
9	1,87	0,38472	1,00000
K-feldspar 97091, Ea = 49.05 Kcal/mol			
1	7,79	0,04951	0,00076
2	6,53	0,07406	0,00323
3	5,56	0,07114	0,00988
4	4,55	0,06038	0,03177
5	3,60	0,22935	0,09426
6	2,64	0,10057	0,28424
7	1,88	0,08234	0,68504
8	1,55	0,33266	1,00000
K-feldspar 97106, Ea = 43.16 Kcal/mol			
1	7,42	0,03377	0,00057
2	6,53	0,03782	0,00157
3	5,68	0,03922	0,00419
4	5,23	0,01745	0,00702
5	2,66	0,21030	0,13542
6	2,65	0,08930	0,13585
7	1,79	0,26349	0,36556
8	0,92	0,30864	1,00000