FLQ-2 BIOTITE #99RD61

J = 0.009917 ± 0.25% SAMPLE WT = 0.0508 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
1550	1.046E-10	6.022E-12	1.027E-14	***	1.396E-14	276.19 ±	.69

Uncertainties in tube blank are included in uncertainties in raw counts.
v 02/05/91 17:35:03 5 Dec 1991

AU-160 MUSCOVITE #48RD72

J = 0.009914 + 0.50% SAMPLE WT = 0.1011 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
900	8.006E-12	4.167E-13	1.250E-15	1.370E-15	3.563E-15	276.14 +	.54
950	9.959E-12	5.217E-13	7.090E-16	2.115E-15	2.986E-15	287.07 +	.28
1000	3.049E-11	1.744E-12	4.597E-16	***	2.481E-15	281.96 +	.30
1025	4.454E-11	2.545E-12	1.244E-15	***	5.001E-15	279.71 +	.11
1050	2.093E-11	1.210E-12	7.060E-16	***	1.824E-15	278.62 +	.37
1100	2.224E-11	1.297E-12	***	***	1.588E-15	277.75 +	.18
1150	1.471E-11	8.441E-13	***	6.134E-16	1.867E-15	277.55 +	.22
1200	2.688E-11	1.573E-12	***	***	1.450E-15	278.16 +	.14
1450	4.129E-11	2.415E-12	***	5.132E-15	***	280.09 +	.55
1450	1.618E-11	9.153E-13	***	***	1.986E-15	281.55 +	.30
TOTAL GAS	2.352E-10	1.348E-11	4.737E-15	9.230E-15	2.399E-14	279.77	

NO PLATEAU

Points ABC deleted;
7 points regressed out of 10 includes 80.1 % of 39Ar
Mean X = .577E-01 Mean Y = .894E-04 Slope = -.461E-01 + .559E-02
36/40 = .275E-02 + .323E-03 39/40 = .597E-01 + .249E-03
Fit parameters: SUMS = 13.07 MSWD = 2.614
40Ar/36Ar = 363.86 + 42.72 F = 16.757 + .07 AGE = 277.26 + 1.67 Ma

LC-1 HORNBLENDE #93,94,95RD61

J = 0.009518 ± 0.50% SAMPLE WT = 0.9984 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
950	1.668E-11	8.285E-13	2.330E-14	4.383E-12	3.822E-15	296.56 ±	1.54
1025	1.324E-10	7.179E-12	1.928E-13	3.420E-11	6.720E-15	287.77 ±	1.41
1050	1.188E-10	6.466E-12	1.748E-13	3.077E-11	3.878E-15	283.22 ±	1.35
1075	8.152E-11	4.441E-12	1.210E-13	2.096E-11	2.075E-15	288.44 ±	1.36
1100	3.067E-11	1.652E-12	4.555E-14	7.907E-12	1.538E-15	289.51 ±	1.38
1135	2.239E-11	1.199E-12	3.322E-14	5.981E-12	1.325E-15	290.31 ±	1.38
1170	6.431E-11	3.473E-12	9.530E-14	1.721E-11	2.262E-15	289.99 ±	1.41
1200	1.026E-11	5.269E-13	1.495E-14	2.716E-12	1.775E-15	292.34 ±	1.52
1235	4.198E-12	2.034E-13	6.165E-15	1.067E-12	1.424E-15	293.66 ±	1.78
1270	1.960E-12	7.795E-14	2.661E-15	3.907E-13	1.696E-15	295.77 ±	3.36
TOTAL GAS	4.833E-10	2.605E-11	7.098E-13	1.256E-10	2.651E-14	288.96	
	K/Ca =	.1					

75.8% of gas or plateau, steps 1025 through 1100 PLATEAU AGE = 288.49 ± 1.49

DM-2 HORNBLENDE

J = 0.009100 ± 0.50% SAMPLE WT = 0.7989 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
850	6.896E-12	8.838E-14	8.359E-15	3.363E-13	1.647E-14	342.13 ±	3.19
950	2.511E-12	7.798E-14	2.325E-15	4.975E-13	3.931E-15	263.79 ±	6.92
1000	3.098E-12	1.115E-13	3.170E-15	7.391E-13	3.388E-15	285.03 ±	7.07
1025	6.023E-12	2.678E-13	6.689E-15	1.792E-12	3.081E-15	288.99 ±	2.78
1050	1.286E-11	6.258E-13	1.429E-14	4.358E-12	3.129E-15	288.63 ±	1.38
1075	2.720E-11	1.370E-12	2.908E-14	9.705E-12	3.736E-15	288.43 ±	1.37
1100	9.140E-11	4.683E-12	9.375E-14	3.298E-11	5.139E-15	290.39 ±	1.43
1125	2.926E-11	1.464E-12	3.105E-14	1.053E-11	3.487E-15	291.71 ±	1.45
1150	7.494E-12	3.495E-13	7.808E-15	2.470E-12	2.313E-15	294.52 ±	2.80
1175	1.631E-11	8.031E-13	1.714E-14	5.695E-12	2.983E-15	290.64 ±	1.65
1225	5.561E-11	2.833E-12	5.725E-14	1.994E-11	3.208E-15	291.80 ±	1.59
1275	3.755E-11	1.898E-12	3.823E-14	1.303E-11	3.271E-15	291.47 ±	1.45
1350	2.609E-12	1.047E-13	2.784E-15	7.206E-13	1.821E-15	298.57 ±	4.92
TOTAL GAS	2.988E-10	1.468E-11	3.119E-13	1.028E-10	5.596E-14	290.96	
	K/Ca =	.1					

82.7% of gas on plateau, steps 1100 through 1350 PLATEAU AGE = 291.23 ± 1.50

BFD-1 MUSCOVITE #104RD61

J = 0.009500 ± 0.50% SAMPLE WT = 0.1009 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
650	5.540E-12	3.021E-13	2.613E-15	1.316E-15	1.284E-15	271.25 ±	1.54
750	1.412E-11	7.535E-13	6.678E-16	6.701E-16	5.191E-16	292.69 ±	1.42
850	4.171E-11	2.300E-12	***	***	***	284.89 ±	1.41
950	1.598E-10	8.931E-12	***	6.218E-15	***	282.51 ±	1.34
1000	2.884E-11	1.604E-12	***	***	4.883E-16	283.18 ±	1.33
1050	2.452E-11	1.360E-12	***	***	4.668E-16	283.77 ±	1.34
1100	3.752E-11	2.091E-12	***	***	***	282.06 ±	1.36
1200	7.426E-11	4.135E-12	***	***	***	283.38 ±	1.37
TOTAL GAS	3.863E-10	2.148E-11	3.281E-15	9.637E-15	6.678E-15	283.22	

K/Ca =
1163.20134204 3I.D

84.4% of gas or plateau, steps 950 through 1200 PLATEAU AGE = 283.07 ± 1.46

v 10/19/89 60

FLQ-2 MUSCOVITE #87

J = 0.007579 + 0.50% SAMPLE WT = 0.0999 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
550	2.167E-12	7.424E-14	4.919E-15	***	3.788E-15	183.33 +	7.58
650	2.833E-12	1.153E-13	4.694E-16	1.051E-15	9.529E-16	279.75 +	2.95
750	1.265E-11	5.370E-13	***	1.961E-15	1.089E-15	289.41 +	1.41
850	4.745E-11	2.208E-12	***	6.531E-15	2.941E-15	267.63 +	1.26
950	1.658E-10	7.305E-12	***	6.002E-15	4.377E-15	284.22 +	1.37
1000	4.006E-11	1.751E-12	***	2.164E-15	1.206E-15	286.11 +	1.37
1050	2.816E-11	1.237E-12	***	1.510E-15	7.923E-16	284.95 +	1.45
1100	5.228E-11	2.303E-12	***	2.157E-15	***	285.05 +	1.36
1200	3.462E-10	1.524E-11	***	2.055E-14	3.970E-15	285.73 +	1.38
1450	1.338E-11	5.790E-13	***	4.861E-15	***	288.91 +	1.44
1650	3.941E-12	1.595E-13	***	***	9.813E-16	288.53 +	2.43
TOTAL GAS	7.149E-10	3.151E-11	5.388E-15	4.691E-14	2.133E-14	283.94	

K/Ca = 440.5

65.2% of gas on plateau, steps 1000 through 1200 PLATEAU AGE = 285.52 +/- 1.48

v 10/19/89 60

TH-5C BIOTITE #88

J = 0.007620 + 0.50% SAMPLE WT = 0.0513 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
1450	1.033E-10	4.674E-12	2.369E-15	1.625E-14	6.118E-15	276.11 +	1.32
1450	5.498E-09	2.486E-10	1.755E-13	8.982E-13	3.402E-13	276.16 +	1.29
TOTAL GAS	5.601E-09	2.533E-10	1.779E-13	9.145E-13	3.463E-13	276.16	
	K/Ca = 144.0						

100.0% of gas on plateau, steps 1450 through 1450 PLATEAU AGE = 276.15 +/- 1.43
100.0% of gas released in steps 1450 through 1450 average age = 276.15 +/- 1.43

Note: all gas quantities are in moles. No blank correction.
* Ages calculated assuming initial 40Ar/36Ar = 295.5 + 0
** 1-sigma precision estimates are for intra-irradiation package reproducibility.
*** below detection limit

FLQ-2 HORNBLENDE #128,130RD65

J = 0.007643 ± 0.50% SAMPLE WT = 0.8059 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
1025	5.083E-12	2.116E-13	7.211E-15	8.757E-13	2.840E-16	299.45 ±	1.42
1050	4.647E-12	1.977E-13	6.871E-15	8.651E-13	8.113E-17	296.67 ±	1.42
1075	8.220E-11	3.495E-12	1.253E-13	1.442E-11	1.779E-15	296.51 ±	1.43
1150	7.426E-12	3.150E-13	1.133E-14	1.306E-12	1.673E-16	296.97 ±	1.40
1175	1.189E-11	5.055E-13	1.831E-14	2.129E-12	***	298.42 ±	3.56
1250	6.145E-12	2.442E-13	9.332E-15	1.016E-12	1.206E-15	300.38 ±	1.64
TOTAL GAS	1.174E-10	4.969E-12	1.783E-13	2.061E-11	3.518E-15	297.03	
	K/Ca = .1						

90.8% of gas or plateau, steps 1050 through 1175 PLATEAU AGE = 296.80 ± 1.53

Note: all gas quantities are in moles. No blank correction.
* Ages calculated assuming initial 40Ar/36Ar = 295.5 ± 0
** 1-sigma precision estimates are for intra-irradiation package reproducibility.
*** below detection limit

v 10/19/89 60

TH-5C MUSCOVITE

J = 0.007678 + 0.50% SAMPLE WT = 0.1015 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
550	1.548E-12	3.898E-14	4.976E-15	1.012E-15	3.637E-15	160.77 +	8.50
650	3.470E-12	1.423E-13	1.076E-15	1.074E-15	1.267E-15	278.70 +	5.10
750	1.167E-11	4.910E-13	***	1.207E-15	1.309E-15	293.21 +	1.55
850	4.926E-11	2.143E-12	***	3.151E-15	3.605E-15	287.41 +	1.37
950	1.482E-10	6.616E-12	***	5.778E-15	4.462E-15	283.95 +	1.38
1000	3.179E-11	1.409E-12	***	1.070E-15	9.831E-16	285.85 +	1.37
1050	2.627E-11	1.166E-12	***	5.857E-16	8.829E-16	285.22 +	1.39
1100	3.540E-11	1.571E-12	***	1.443E-15	1.041E-15	285.63 +	1.33
1200	1.040E-10	4.630E-12	***	5.189E-15	1.547E-15	286.00 +	1.36
1300	1.539E-11	7.156E-13	***	3.753E-15	7.416E-16	272.07 +	1.29
1450	2.772E-12	1.187E-13	***	***	4.555E-16	284.11 +	2.96
TOTAL GAS	4.298E-10	1.904E-11	6.052E-15	2.461E-14	1.993E-14	284.71	

K/Ca = 531.1

NO PLATEAU

PM-12 MUSCOVITE #102RD61

J = 0.009435 ± 0.01% SAMPLE WT = 0.1004 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
650	4.493E-12	3.173E-13	4.002E-15	2.580E-15	1.926E-15	199.13 ±	.94
750	1.588E-11	8.103E-13	4.566E-16	3.346E-16	5.802E-16	302.99 ±	.69
850	3.825E-11	2.025E-12	***	1.879E-15	1.360E-15	293.05 ±	.54
950	1.742E-10	9.526E-12	***	4.535E-15	***	286.32 ±	.39
1000	2.920E-11	1.593E-12	***	***	5.246E-16	286.32 ±	.36
1050	2.132E-11	1.159E-12	***	***	5.180E-16	286.79 ±	.54
1100	3.979E-11	2.172E-12	***	***	***	286.26 ±	.95
1200	7.063E-11	3.806E-12	***	***	3.259E-15	287.42 ±	.58
1350	2.802E-12	1.489E-13	***	***	***	290.09 ±	4.24
1450	1.400E-12	6.949E-14	***	***	4.369E-16	287.24 ±	3.79
TOTAL GAS	3.980E-10	2.163E-11	4.985E-15	9.745E-15	1.134E-14	286.57	

K/Ca =
1024.14680299 3I.D

85.4% of gas or plateau, steps 950 through 1450 PLATEAU AGE = 286.55 ± .66

BL-13 HORNBLENDE

J = 0.009105 ± 0.50% SAMPLE WT = 0.4678 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
850	4.288E-12	3.135E-14	6.846E-15	2.075E-13	1.255E-14	297.02 ±	13.80
950	1.449E-12	5.140E-14	9.388E-16	5.577E-13	1.834E-15	270.35 ±	9.25
1025	3.578E-12	1.630E-13	1.237E-15	1.796E-12	1.468E-15	292.27 ±	1.97
1050	7.870E-12	3.856E-13	2.185E-15	4.115E-12	1.535E-15	291.29 ±	2.08
1075	1.219E-11	6.123E-13	3.192E-15	6.531E-12	1.215E-15	292.43 ±	1.66
1100	1.137E-11	5.720E-13	2.734E-15	6.110E-12	1.103E-15	292.29 ±	1.46
1125	4.739E-12	2.304E-13	1.170E-15	2.459E-12	8.847E-16	294.05 ±	1.66
1150	6.659E-12	3.306E-13	1.791E-15	3.503E-12	1.002E-15	291.47 ±	1.71
1200	4.197E-11	2.139E-12	9.874E-15	2.255E-11	1.924E-15	292.84 ±	1.64
1250	1.744E-11	8.728E-13	4.512E-15	9.245E-12	1.764E-15	293.23 ±	1.41
1300	3.167E-12	1.421E-13	1.146E-15	1.495E-12	1.529E-15	289.78 ±	2.23
1350	6.388E-13	1.371E-14	5.452E-16	1.435E-13	1.298E-15	286.72 ±	14.12
TOTAL GAS	1.154E-10	5.544E-12	3.617E-14	5.871E-11	2.811E-14	292.37	
	K/Ca =	.0					
		assuming 40Ar/36Ar initial = 295.5				292.15	

95.7% of gas on plateau, steps 1025 through 1250 PLATEAU AGE = 292.80 ± 1.51
63.1% of gas on plateau, steps 1150 through 1350 PLATEAU AGE = 292.88 ± 1.51

RS-1 HORNBLENDE

J = 0.007510 ± 0.50% SAMPLE WT = 0.7986 g

TEMP C	Initial & radiogenic 40Ar	Potassium derived 39Ar	Chlorine derived 38Ar	Calcium derived 37Ar	Initial 36Ar	AGE* in Ma	**
1020	5.955E-12	2.512E-13	1.921E-14	7.925E-13	2.444E-16	292.27 ±	1.36
1040	1.549E-11	6.567E-13	5.733E-14	2.465E-12	2.549E-16	292.85 ±	1.37
1060	1.006E-11	4.277E-13	3.681E-14	1.589E-12	***	292.41 ±	1.38
1080	4.728E-11	2.004E-12	1.684E-13	7.282E-12	4.183E-16	293.58 ±	1.39
1200	1.449E-11	6.135E-13	5.337E-14	2.310E-12	2.271E-16	293.23 ±	1.38
1350	3.968E-12	1.515E-13	1.377E-14	6.044E-13	1.284E-15	295.44 ±	1.95
TOTAL GAS	9.723E-11	4.104E-12	3.488E-13	1.504E-11	2.565E-15	293.28	
	K/Ca =	.1					

96.3% of gas or plateau, steps 1020 through 1200 PLATEAU AGE = 292.73 ± 1.51
67.5% of gas or plateau, steps 1080 through 1350 PLATEAU AGE = 293.43 ± 1.51