

## Material for the GSA data repository

1. Appendix (coordinates for sample locations and brief petrographic descriptions).
2. Amphibole compositional data (one table).
3. Ar-Ar analytical data (four tables).

## APPENDIX

The name of the sample locality is followed by UTM-coordinates and the name of the topographical 1: 50 000 map sheet. Mineral abbreviations: ap = apatite, bi = biotite, cc = calcite, chl = chlorite, cpx = clinopyroxene, ep = epidote, fsp = feldspar, gt =garnet, hbl = hornblende, kfsp = K-feldspar, mu = muskovite, op = opaque, pl = plagioclase, ru = rutile, sc = scapolite, ser = sericite, sill = sillimanite, sp = sphene, qz = quartz, zr = zircon, underlined abbreviations = accessory minerals.

1. Kiran; 32WNS 5400/1115, Stokksund 1523 II; amphibolite; hbl (0.2 - 1 mm), pl, bi, gt, ap; foliation defined by hbl and bi; in a few grains of hbl there are very thin layers of biotite.
2. Geisnes; 32WNS 5575/0995, Stokksund 1523 II, hbl-rich vein in qz-fsp gneiss; hbl (c. 10 mm) , pl, sc, bi, chl, cc; no foliation; biotite is slightly chloritized. No alterations seen in hbl.
3. Nesvalen; 32WNS 5800/1530, Stokksund 1523 II; amphibolitized dyke in qz-fsp gneiss; hbl (c. 0.5 mm), bi, pl, chl, ap, op; weak foliation defined by bi; bi partly replaced by chl; no alterations in hbl.
4. Hellfjord, 32WNS 6335/1860, Roan 1623 III; Pegmatitic vein in quartz-monzodiorite; hbl (5-10 mm), bi, perthitic fsp, sc, zr, cc, op; no foliation; very few inclusions in hbl; sc partly replaced by cc.
5. Bessaker, 32WNS 6430/2530, Roan 1623 III; amphibolite; hbl (0.5 - 1 mm), pl, bi, chl, ser, gt, ap, op, zr; no foliation; pl is sericitized and bi is partly replaced by chl. A slight chloritization is seen in a few hbl.
6. Kvernland, 32WNS 7980/2525, Roan 1623 III; amphibolite; hbl (1 - 3 mm), pl, bi, sph, ap, ep, chl, qz; no foliation; very small grains of biotite are enclosed within the hbl.
7. Vassdølinsetran, 32WNS 8965/2455, Holden 1623 II; amphibolite; hbl (1 - 3 mm), pl, bi, sph, chl, ep, ser, ap, zr, op; weak foliation defined by hbl and bi; bi and pl are partly replaced by chl and ser respectively; hbl almost free of inclusions.

- 8A. Fosslia; 32WPS 3900/2700, Jøssund 1623 I; amphibolite; hbl (1 - 3 mm), pl, sp; texturally well equilibrated massive amphibolite; very pure and inclusion free hbl.
- 8B. Fosslia, 32WPS 3910/2710<, Jøssund 1623 I; mica-schist; mu, bi, pl, sill, qz, ap, zr; bi and mu form thin bands interlayered by pl-rich bands. Bi is partly replaced by fibrolitic sill.
9. Bergehaugen, 32WPS1320/2480, Steinkjer 1723 III; hbl-gneiss; hbl (0.5 - 2 mm), pl, bi, qz, ep, zr, ap, zoi, mu, sp; bi and hbl define the foliation.
- 10A. Dorrås; 32WPS 1420/2570, Steinkjer 1723 III; amphibolite; hbl (0.5 - 2 mm), ser, pl, qz, chl, cc, sp, zr, ap, op; no foliation; the pl is almost completely replaced by ser and some of the hbl is chloritized.
- 10B. Dorrås, 32WPS 1420/2570, Steinkjer 1723 III; mica-schist; mu, bi, pl, chl, gt; the foliation is defined by the bi and mu; bi is largely replaced by chl but no signs of secondary alteration of mu.
11. Sprova, 32WPS 1280/1340, Steinkjer 1723 III; hbl-gneiss, hbl (0.5 - 2mm), bi, pl, ep, qz, chl, ap, op; bi, ep and hbl define a well developed foliation. Bi is slighlly chloritized.
12. Holmviktangen, 32WPS1300/1130, Steinkjer 1723 III; amphibolite; hbl (1 -4 mm),pl, op, chl, cc; weak foliation defined by hbl orientation, chl and cc occur in thin late fractures. Hbl is well-preserved.
13. Otterdalen, 32WPS 1325/5330, Namsos 1723 IV; granitoid gneiss; mu, kfsp, pl, qz, zr; no foliation, mu is randomly oriented. No alterations found.
14. Sandvik, 32WPS 1280/5335, Namsos 1723 IV; banded amphibolite; hbl (1 - 5 mm), pl, bi, qz, chl, sp; hbl- and pl-rich band alternate in cm scale. No alterations seen in hbl.
- 15A. Elvalandet, 32WPS 1820/6470, Jøa 1724 III amphibolite, hbl (0.25 - 0.5 mm), pl, gt, chl, sp; poorly developed foliation, chl occur in fractures formed by late brittle deformation.

- 15B. Elvalandet, 32WPS 1820/6470, Jøa 1724 III; mu-bi-schist; mu, bi, qz, pl, sill, gt, ru; the schistosity is defined by mu and bi with fibrolitic sill in rounded "augens" within the foliation planes. no late retrograde minerals found.
16. Holandsøya; 33WUM 6260/5370; Overhalla 1723 I; hbl-gneiss; hbl (0.5 - 2 mm), pl, bi, sp, qz, kfsp, zr, ap, op, ep; foliation defined by hbl and bi; no secondary low-grade alterations were found.
17. Stakklumpen; 33WUM 6605/5015; Overhalla 1723 I; granitoid gneiss; mu, kfsp, pl, qz, ap, zr; mu along with recrystallized pl and qz define the foliation. No late alteration minerals were found.
- 18A. Vibstad; 4115/5235; Overhalla 1723 I; amphibolite; hbl (1 - 5 mm), pl, bi, ep, kfsp, sp, ap, op; poorly developed foliation defined by hbl and bi. No late stage low-grade alterations found.
- 18B. Vibstad; 4115/5235; Overhalla 1723 I; Qz-mu-schist; qz, mu, pl, kfsp; the schistosity is defined by elongated recrystallized domains of qz and fsp and mu. No late stage low-grade alterations found.
19. Grong; 33WUM 7160/5020; Grong 1823 IV; granitoid gneiss; hbl (< 0.25 mm), bi, mu, pl, kfsp, qz, hbl, ap, zr; Foliation defined by mu and bi.
20. Formofoss; 33WUM 7195/4440; Grong 1823 IV; amphibolite; hbl (0.5 - 1 mm), pl, bi, qz, ap, gt, sp, chl; oriented growth of the biotites define a weak foliation; Small biotites in som hbl grains; the biotite is slightly chloritized.
21. Heia; 33WUM 7160/4100; Grong 1823 IV; gt-amphibolite; hbl (0.25 - 0.5 mm), pl, gt, cpx, cc, ap, op, zr; no foliation; cpx is largely replaced by hbl. Gt is separated from hbl by a rim of pl.

Hbl compositional data

Page 1

Sample no. Basem./Cover	1 B	2 B	3 B	4 B	5 B	6 B	7 B	8-A C	9 C
SIO2	40.99	40.89	40.50	39.82	42.37	42.58	39.71	44.93	40.17
TIO2	2.46	1.35	2.04	1.86	1.65	1.17	1.27	1.12	1.06
AL2O3	12.06	12.52	12.95	12.82	11.95	12.30	13.21	12.49	14.41
FEO	16.38	16.45	16.20	17.01	17.91	16.33	18.98	13.75	17.8
MNO	0.20	0.14	0.22	0.22	0.31	0.31	0.48	0.22	0.51
MGO	10.99	10.26	10.56	9.65	9.86	10.96	8.87	12.03	8.41
CAO	11.62	11.64	11.86	11.42	11.32	12.11	12.12	11.46	11.54
NA2O	1.82	1.66	1.87	1.69	1.70	1.59	1.32	1.68	1.42
K2O	1.56	1.83	1.36	2.05	0.75	0.43	1.65	0.43	1.13
F2O	n.d.	0.39	n.d.	0.17	n.d.	n.d.	n.d.	0.05	0.09
CL2O	n.d.	0.16	n.d.	0.18	n.d.	n.d.	n.d.	0.11	0.08
SUM - H2O	98.08	97.29	97.56	96.89	97.82	97.78	97.61	98.27	96.62
SI	6.184	6.232	6.133	6.131	6.384	6.370	6.107	6.559	6.164
TI	0.279	0.155	0.232	0.215	0.187	0.132	0.146	0.123	0.123
AL	2.144	2.249	2.311	2.325	2.123	2.171	2.395	2.149	2.607
FE tot. as 2+	2.067	2.097	2.053	2.190	2.257	2.045	2.441	1.679	2.285
MN	0.025	0.019	0.028	0.029	0.040	0.039	0.062	0.027	0.066
MG	2.471	2.331	2.383	2.216	2.215	2.443	2.033	2.617	1.923
CA	1.878	1.902	1.924	1.884	1.828	1.941	1.998	1.793	1.897
NA	0.532	0.489	0.549	0.503	0.498	0.461	0.393	0.477	0.421
K	0.300	0.355	0.263	0.403	0.143	0.083	0.324	0.080	0.222
OH	2.000	1.833	2.000	1.900	2.000	2.000	2.000	1.963	1.952
F	nd	0.133	nd	0.059	nd	nd	nd	0.015	0.031
CL	nd	0.034	nd	0.039	nd	nd	nd	0.022	0.017
Cation sum	15.880	15.828	15.876	15.896	15.677	15.684	15.899	15.503	15.708
Fe3+	0.158	0.073	0.126	0.092	0.187	0.180	0.153	0.141	0.134
Fe2+	1.909	2.024	1.927	2.098	2.070	1.865	2.288	1.539	2.150
Mg/(Mg+Fe2+)	0.564	0.535	0.553	0.514	0.517	0.567	0.470	0.630	0.472
	Ferroan pargasite	Ferroan pargasite	Ferroan pargasite	Ferroan pargasite	Ferroan pargasitic hornblende	Ferroan pargasitic hornblende	Ferroan pargasite	Edenitic hornblende	Ferroan pargasite

Hbl compositional data cont.

Page 2

10-A C	11 B	12 C	14 B	15-A C	16 B	18-B B	19 B	20 B	21 C
44.6	41.45	43.91	42.3	42.43	39.77	44.42	41.14	41.35	43.20
0.74	0.99	0.57	1.61	0.89	0.84	0.63	0.51	0.96	0.97
13.12	12.47	13.05	11.42	15.13	12	10.82	14.72	13.39	11.74
12.98	17.71	15.26	18.06	14.28	22.36	14.37	17.08	17.53	16.87
0.16	0.40	0.58	0.31	0.16	0.5	0.33	0.34	0.30	0.05
12.02	9.71	11.27	9.14	11.46	6.75	11.94	9.17	8.66	10.83
11.95	12.09	10.55	11.62	10.52	11.38	12.38	12.35	12.27	11.33
1.03	1.44	2.04	1.72	2.36	1.59	1.16	1.22	1.24	2.00
0.89	1.16	0.37	1.03	0.37	1.67	1.19	1.75	1.74	0.10
0.22	n.d.	0.05	0.11	0.13	n.d.	0.06	n.d.	n.d.	n.d.
0.04	n.d.	0.02	0.04	0.02	n.d.	0.05	n.d.	n.d.	n.d.
97.75	97.42	97.67	97.36	97.75	96.86	97.35	98.27	97.44	97.09
6.531	6.304	6.500	6.438	6.253	6.265	6.623	6.192	6.292	6.489
0.082	0.114	0.064	0.184	0.099	0.100	0.070	0.057	0.110	0.110
2.264	2.236	2.275	2.048	2.628	2.228	1.901	2.610	2.402	2.079
1.589	2.253	1.889	2.298	1.760	2.946	1.792	2.150	2.231	2.119
0.020	0.052	0.073	0.041	0.020	0.067	0.042	0.043	0.039	0.006
2.624	2.201	2.488	2.073	2.517	1.585	2.653	2.059	1.963	2.425
1.875	1.970	1.673	1.895	1.661	1.921	1.978	1.991	2.000	1.823
0.293	0.425	0.584	0.507	0.676	0.486	0.336	0.355	0.366	0.583
0.166	0.226	0.069	0.199	0.070	0.336	0.227	0.335	0.337	0.020
1.921	2.000	1.978	1.956	1.953	2.000	1.969	2.000	2.000	2.000
0.072	nd	0.018	0.037	0.042	0.000	0.020	nd	nd	nd
0.007	nd	0.004	0.008	0.004	0.000	0.010	nd	nd	nd
15.445	15.782	15.614	15.685	15.684	15.932	15.622	15.792	15.738	15.654
0.101	0.134	0.251	0.062	0.267	0.157	0.061	0.089	0.016	0.225
1.489	2.119	1.637	2.236	1.494	2.789	1.731	2.061	2.215	1.895
0.638	0.510	0.603	0.481	0.628	0.362	0.605	0.500	0.470	0.561
Magnesio-hornblende	Ferroan pargasitic hornblende	Edenitic hornblende	Ferroan pargasitic hornblende	Ferroan pargasitic hornblende	Ferroan pargasitic hornblende	Edenitic hornblende	Ferroan pargasite	Ferroan pargasitic hornblende	Ferroan pargasitic hornblende

Table 6.  $^{40}\text{Ar}/^{39}\text{Ar}$  analytical data for incremental heating experiments on amphibole concentrates from Vestranden, Norway.

Release temp (°C)	$(^{40}\text{Ar}/^{39}\text{Ar})^*$	$(^{36}\text{Ar}/^{39}\text{Ar})^*$	$(^{37}\text{Ar}/^{39}\text{Ar})^c$	$^{39}\text{Ar}$ % of total	% non- atmos. <sup>+</sup>	% $^{36}\text{Ar}_{\text{Ca}}$	Apparent Age (Ma)**
----------------------	-------------------------------------	-------------------------------------	-------------------------------------	-----------------------------------	----------------------------------	-----------------------------------	------------------------

Roan Window

Sample 1:  $J = 0.008938$

600	1887.67	0.35944	6.246	0.30	94.37	0.47	5100.9 ± 42.7
700	509.24	0.04905	1.919	0.75	97.18	1.06	3052.2 ± 6.8
725	87.52	0.02961	2.433	0.54	90.22	2.24	964.7 ± 4.8
750	51.49	0.01579	2.985	1.27	91.39	5.14	634.5 ± 2.7
775	42.25	0.00676	3.288	3.44	95.88	13.23	558.6 ± 1.9
785	38.13	0.00321	3.390	9.40	98.21	28.75	522.0 ± 1.4
800	37.93	0.00283	3.423	10.29	98.51	32.91	520.9 ± 1.7
815	38.13	0.00278	3.411	9.17	98.55	33.32	523.4 ± 1.4
825	36.78	0.00233	3.407	13.92	98.86	39.75	508.7 ± 2.3
835	35.11	0.00260	3.417	7.83	98.57	35.69	487.3 ± 2.3
850	33.27	0.00194	3.382	15.22	99.07	47.34	466.8 ± 2.1
875	38.62	0.00204	3.403	13.72	99.13	45.31	532.0 ± 2.0
900	38.93	0.00216	3.497	11.96	99.07	44.07	535.5 ± 2.3
Fusion	50.13	0.00448	3.660	2.19	97.93	22.20	657.7 ± 2.9
Total	47.06	0.00436	3.403	100.00	98.52	37.19	552.9 ± 2.8

Sample 2:  $J = 0.008951$

550	564.12	0.14532	3.427	0.32	92.44	0.64	3132.5 ± 62.8
600	116.46	0.05365	1.523	0.31	86.49	0.77	1160.1 ± 69.7
625	54.73	0.04509	1.967	0.48	75.93	1.19	571.1 ± 33.0
650	41.71	0.00718	2.501	2.29	95.38	9.48	550.3 ± 4.9
670	38.36	0.00460	2.640	4.66	96.99	15.60	519.3 ± 4.3
690	37.28	0.00149	2.667	7.29	99.38	48.82	517.4 ± 2.8
710	36.12	0.00158	2.667	24.64	99.28	45.78	502.9 ± 0.7
730	35.67	0.00141	2.650	23.33	99.42	51.28	498.0 ± 0.9
750	36.20	0.00152	2.640	25.35	99.33	47.18	504.1 ± 1.3
770	38.96	0.00174	2.619	7.62	99.20	40.91	536.6 ± 1.9
790	42.10	0.00534	2.608	3.26	96.74	13.28	561.4 ± 7.4
820	46.06	0.07292	2.596	0.32	53.66	0.97	361.0 ± 63.5
Fusion	59.83	0.07817	2.643	0.11	61.73	0.92	516.0 ± 186.3
Total	38.88	0.00307	2.641	100.00	98.69	43.28	519.9 ± 2.6

Table 6. Continued (Page 2).

Sample 3: J = 0.008989

600	413.16	0.15063	3.514	0.52	89.29	0.63	2641.2	±	4.8
650	291.35	0.08402	1.884	0.30	91.53	0.61	2207.7	±	12.1
700	126.53	0.10688	4.133	0.26	75.30	1.05	118.2	±	8.7
725	42.81	0.02000	4.263	1.22	86.99	5.80	522.1	±	6.3
750	32.73	0.00697	4.046	3.32	94.68	15.78	444.3	±	1.4
775	31.24	0.00455	4.038	5.50	96.72	24.16	434.5	±	1.2
785	30.68	0.00358	4.068	9.35	97.60	30.90	431.0	±	1.0
800	31.06	0.00308	4.122	12.65	98.12	36.38	437.8	±	2.6
815	31.22	0.00337	4.174	9.60	97.86	33.66	438.8	±	1.7
825	30.93	0.00288	4.243	11.26	98.33	40.09	437.0	±	1.3
835	31.08	0.00305	4.288	12.24	98.19	38.27	438.3	±	2.3
850	31.61	0.00286	4.250	11.68	98.39	40.45	445.8	±	2.3
875	33.26	0.00279	4.243	10.44	98.53	41.44	466.8	±	2.5
900	34.38	0.00340	4.219	8.00	98.04	33.71	478.6	±	2.4
Fusion	39.00	0.02003	4.143	3.65	85.66	5.62	474.8	±	3.2
Total	35.12	0.00542	4.177	100.00	97.24	33.81	465.5	±	2.3

Sample 4: J = 0.009155

550	1315.41	0.19210	3.669	0.41	95.71	0.52	4564.0	±	51.1
600	246.74	0.07307	1.309	0.37	91.29	0.49	2019.9	±	53.0
625	50.83	0.01453	2.164	1.66	91.88	4.05	642.9	±	7.7
660	41.75	0.00395	2.442	7.49	97.66	16.80	573.0	±	1.9
685	40.25	0.00266	2.499	15.11	98.53	25.56	559.5	±	1.3
700	39.02	0.00212	2.520	19.66	98.90	32.29	546.5	±	0.8
715	38.07	0.00212	2.534	19.07	98.88	32.56	534.9	±	1.0
730	37.90	0.00200	2.543	14.42	98.96	34.50	533.3	±	1.0
745	36.99	0.00214	2.559	11.61	98.83	32.54	521.5	±	1.2
760	37.28	0.00288	2.583	5.69	98.26	24.42	522.5	±	2.8
790	49.67	0.00436	2.619	4.07	97.82	16.32	664.8	±	4.6
Fusion	54.24	0.01454	2.562	0.45	92.45	4.79	682.5	±	40.3
Total	45.39	0.00375	2.523	100.00	98.48	28.57	570.9	±	2.0

Table 6. Continued (Page 3).

## Vestranden Gneiss Complex

## Orthogneisses

## Sample 5: J = 0.008645

600	213.14	0.28727	3.289	1.59	60.29	0.31	1349.8	±	10.4
700	65.71	0.07319	6.176	1.44	67.84	2.30	590.0	±	4.5
725	56.74	0.07048	8.509	0.64	64.49	3.28	498.2	±	13.4
750	43.85	0.03235	8.160	0.98	79.69	6.86	478.4	±	7.6
775	34.53	0.01158	7.460	4.00	91.81	17.52	438.8	±	3.3
785	32.84	0.00718	7.376	8.30	95.33	27.96	433.9	±	2.6
800	32.35	0.00653	7.293	8.77	95.83	30.39	430.1	±	3.1
815	31.97	0.00720	7.164	5.87	95.13	27.08	422.8	±	2.2
825	30.73	0.00576	6.931	8.00	96.26	32.73	412.4	±	2.3
835	30.91	0.00502	6.640	10.54	96.90	35.94	416.9	±	1.8
850	31.12	0.00425	6.496	19.00	97.62	41.57	422.2	±	3.1
875	31.77	0.00508	6.579	15.59	96.92	35.21	427.4	±	3.8
900	31.55	0.00593	6.511	9.42	96.09	29.88	421.4	±	3.7
Fusion	36.66	0.02378	6.435	5.84	82.23	7.36	419.3	±	5.0
Total	35.64	0.01297	6.751	100.00	94.15	30.45	442.0	±	3.3

## Sample 6: J = 0.008951

625	207.91	0.53381	18.532	0.46	24.84	0.94	692.3	±	33.3
675	139.65	0.37686	25.588	0.31	21.73	1.85	439.7	±	40.3
700	94.69	0.24063	18.572	0.31	26.47	2.10	369.1	±	44.2
725	53.57	0.09954	14.139	0.70	47.21	3.86	371.1	±	13.4
750	44.25	0.06266	12.729	2.60	60.46	5.53	390.1	±	4.2
775	29.06	0.01048	12.486	21.71	92.77	32.39	392.7	±	2.3
785	30.43	0.01537	12.546	11.32	88.37	22.21	391.8	±	2.4
800	31.03	0.01689	12.701	7.80	87.19	20.45	394.0	±	3.6
815	31.79	0.01875	12.505	6.32	85.72	18.14	396.6	±	4.3
825	31.00	0.01819	12.267	6.13	85.82	18.34	388.0	±	4.2
835	29.02	0.01043	12.647	11.41	92.86	32.99	392.6	±	2.5
850	28.39	0.00751	12.591	15.89	95.72	45.59	395.5	±	3.6
870	29.01	0.01026	12.618	9.15	93.03	33.46	393.2	±	2.5
Fusion	38.67	0.04242	12.556	5.87	70.17	8.05	395.0	±	4.7
Total	32.05	0.02018	12.654	100.00	88.24	28.15	394.5	±	3.6
Total without 625-750°C					98.21		393.2	±	3.2

Table 6. Continued (Page 4).

## Sample 11: J = 0.008883

625	74.33	0.08265	1.911	1.65	67.34	0.63	664.3	±	5.3
675	43.44	0.04320	4.798	1.61	71.49	3.02	440.7	±	3.5
700	35.96	0.02140	5.292	1.84	83.58	6.73	428.2	±	3.5
715	32.40	0.01201	5.106	3.36	90.29	11.56	417.9	±	2.9
725	30.97	0.00718	5.037	5.93	94.42	19.08	417.5	±	3.7
735	30.67	0.00577	5.012	8.20	95.74	23.63	419.3	±	2.1
750	30.04	0.00497	4.957	9.46	96.42	27.13	414.2	±	1.9
765	29.69	0.00431	4.928	10.60	97.03	31.11	412.2	±	3.0
775	29.50	0.00380	4.879	15.32	97.50	34.91	411.6	±	3.1
785	28.99	0.00343	4.781	10.34	97.81	37.9.	406.3	±	3.3
800	29.11	0.00331	4.416	7.95	97.84	36.32	408.0	±	3.4
825	29.19	0.00251	4.086	8.27	98.56	44.23	411.5	±	3.6
850	29.25	0.00242	4.110	11.37	98.68	46.14	414.1	±	3.7
Fusion	36.40	0.02680	4.441	4.11	79.21	4.51	412.4	±	2.4
Total	31.13	0.00746	4.659	100.00	95.14	30.75	418.0	±	3.1
Total without 625-700°C				94.91			413.1	±	3.0

## Sample 16: J = 0.008588

540	93.00	0.06477	1.018	1.45	79.50	0.43	887.5	±	15.9
590	34.91	0.01619	3.035	4.05	86.98	5.10	418.8	±	4.0
610	30.87	0.00370	3.208	9.31	97.27	23.58	414.7	±	1.9
630	30.90	0.00297	3.191	7.81	97.97	29.22	417.8	±	1.8
650	30.61	0.00226	3.164	11.20	98.63	38.06	416.7	±	1.1
670	30.29	0.00227	3.152	13.65	98.61	37.85	412.8	±	1.5
685	30.37	0.00202	3.138	10.42	98.85	42.28	414.6	±	2.9
700	30.16	0.00206	3.140	13.90	98.79	41.37	411.8	±	2.0
715	30.06	0.00227	3.136	10.84	98.59	37.63	409.8	±	1.3
730	30.10	0.00212	3.160	9.95	98.75	40.63	411.0	±	1.0
740	30.57	0.00393	3.184	4.55	97.02	22.02	410.2	±	4.3
755	31.95	0.00498	3.250	1.78	96.19	17.75	423.5	±	11.3
770	36.00	0.01468	3.421	0.81	88.70	6.34	438.1	±	34.5
Fusion	54.49	0.10218	3.309	0.27	45.07	0.88	345.9	±	102.3
Total	31.65	0.00441	3.128	100.00	97.41	33.77	420.7	±	3.2
Total without 540, 755, 770°C and fusion				95.69			413.5	±	1.9

Table 6. Continued (Page 5).

Sample 18A: J = 0.008925

540	121.23	0.03702	0.928	2.78	91.03	0.68	1237.4	±	9.6
590	47.48	0.03372	2.681	1.32	79.46	2.16	524.4	±	20.5
610	46.90	0.01991	4.948	2.44	88.29	6.76	568.9	±	17.7
630	43.84	0.01010	4.888	1.93	94.08	13.17	567.0	±	10.6
650	39.63	0.00589	4.676	4.17	96.54	21.58	531.3	±	5.9
670	37.51	0.00537	4.498	7.66	96.72	22.77	507.3	±	3.7
685	36.37	0.00409	4.384	9.53	97.63	29.14	497.9	±	3.4
700	34.56	0.00406	4.296	13.46	97.51	28.81	475.5	±	1.5
715	33.28	0.00361	4.236	15.86	97.80	31.94	461.1	±	3.3
730	32.14	0.00290	4.179	15.96	98.36	39.24	449.4	±	1.1
740	31.40	0.00275	4.141	10.72	98.46	41.02	440.6	±	3.7
755	31.26	0.00496	4.136	5.40	96.35	22.67	430.5	±	4.6
770	33.65	0.00315	4.229	3.07	98.23	36.53	467.5	±	2.7
790	35.26	0.00502	4.180	3.52	96.73	22.63	480.5	±	7.5
820	36.66	0.01205	4.158	1.83	91.19	9.39	472.1	±	21.8
Fusion	53.60	0.09127	4.244	0.34	50.30	1.26	389.9	±	71.1
Total	37.23	0.00615	4.186	100.00	96.65	28.81	495.2	±	4.4

Sample 19: J = 0.008903

500	2135.30	0.16882	2.808	0.20	97.67	0.45	5367.4	±	41.9
600	126.61	0.05671	1.491	0.83	86.85	0.72	1232.0	±	5.0
700	58.99	0.02105	3.633	3.76	89.94	4.70	699.0	±	3.9
725	58.16	0.01308	4.151	3.33	93.92	8.64	716.3	±	6.9
750	55.68	0.01117	3.892	5.76	94.62	9.48	695.1	±	4.0
765	51.52	0.00675	3.719	9.25	96.69	14.98	663.4	±	4.8
785	43.01	0.00422	3.582	15.19	97.75	23.07	574.6	±	4.1
800	36.70	0.00329	3.301	16.39	98.06	27.27	502.2	±	3.0
825	33.83	0.00251	3.255	22.23	98.56	35.27	469.7	±	2.8
875	39.30	0.00287	3.248	19.83	98.49	30.79	535.0	±	2.8
Fusion	45.21	0.01978	3.174	3.22	87.62	4.36	545.8	±	4.3
Total	46.82	0.00625	3.416	100.00	97.01	24.46	570.3	±	3.6

Table 6. Continued (Page 6).

## Sample 20: J = 0.009102

500	927.35	0.23186	2.467	0.21	92.63	0.29	3929.6	±	41.4
600	87.51	0.08456	1.234	0.84	71.55	0.40	814.2	±	8.6
700	39.27	0.01686	3.188	5.16	87.95	5.14	494.0	±	6.2
750	34.03	0.00386	3.131	20.90	97.37	22.08	476.4	±	1.4
775	32.28	0.00288	3.109	23.70	98.12	29.36	457.7	±	1.5
800	30.74	0.00253	3.049	24.99	98.35	32.81	439.3	±	1.3
825	30.73	0.00311	3.021	10.60	97.78	26.46	437.0	±	4.1
850	33.51	0.00670	3.332	3.55	94.87	13.53	459.4	±	3.2
875	33.09	0.00364	3.235	8.58	97.52	24.16	465.4	±	2.3
Fusion	58.69	0.08536	3.135	1.48	57.44	1.00	483.6	±	6.5
Total	35.29	0.00633	3.095	100.00	96.46	25.41	468.0	±	2.3

## Supracrustal gneisses

## Sample 7: J = 0.008992

625	43.90	0.06083	1.750	1.33	59.36	0.78	380.0	±	3.8
675	42.36	0.05593	4.199	0.97	61.77	2.04	382.1	±	4.2
700	33.21	0.02109	4.230	1.55	82.24	5.46	397.1	±	2.6
715	29.14	0.00819	3.753	4.81	92.71	12.47	393.1	±	2.0
725	28.87	0.00640	3.649	6.31	94.44	15.50	396.4	±	1.7
735	28.17	0.00440	3.609	8.46	96.40	22.33	394.8	±	1.6
750	28.01	0.00434	3.600	8.84	96.43	22.57	393.0	±	2.4
765	27.90	0.00348	3.617	9.52	97.34	28.29	394.8	±	1.6
775	27.72	0.00274	3.593	10.94	98.09	35.61	395.3	±	2.8
785	27.72	0.00229	3.569	12.83	98.57	42.31	397.0	±	2.6
800	27.76	0.00270	3.532	16.13	98.13	35.60	395.9	±	3.2
825	28.49	0.00481	3.499	6.79	95.98	19.79	397.3	±	2.7
850	29.18	0.00666	3.630	3.91	94.23	14.82	399.4	±	2.5
Fusion	29.98	0.01085	3.606	7.63	90.19	9.04	398.9	±	1.8
Total	28.65	0.00600	3.583	100.00	95.30	25.95	395.0	±	2.4
Total without 625-700°C					96.16		395.6	±	2.4

Table 6. Continued (Page 7).

## Sample 8A: J = 0.008713

540	95.31	0.20140	3.564	0.99	37.85	0.48	494.0	±	44.1
595	70.46	0.17088	5.995	0.82	29.01	0.95	296.7	±	51.2
610	89.40	0.25596	12.018	0.54	16.47	1.28	219.4	±	119.2
630	84.12	0.23507	14.107	0.40	18.77	1.63	234.5	±	126.3
650	43.61	0.06398	13.653	1.12	59.15	5.80	368.6	±	34.4
670	33.03	0.02069	13.657	3.68	84.80	17.96	397.0	±	13.0
690	31.39	0.01572	13.811	5.14	88.71	23.89	395.0	±	4.3
705	30.07	0.01118	13.641	14.66	92.64	33.19	395.1	±	2.1
730	29.55	0.00851	13.422	21.20	95.12	42.88	398.2	±	3.5
740	29.78	0.00892	13.177	10.07	94.68	40.18	399.3	±	2.6
755	29.53	0.00973	13.032	10.16	93.79	36.43	392.9	±	2.7
770	28.90	0.00700	13.014	21.54	96.44	50.54	395.1	±	1.5
785	30.20	0.01166	13.077	5.86	92.06	30.52	394.2	±	2.9
800	34.03	0.01489	12.878	2.05	90.09	23.52	430.2	±	18.2
820	42.43	0.04699	13.165	0.73	69.75	7.62	417.0	±	43.1
Fusion	42.08	0.06119	12.791	1.07	59.46	5.69	358.4	±	55.1
Total	31.77	0.01680	13.130	100.00	91.07	36.95	394.8	±	6.7
Total without 540-670, 800, 820°C and fusion				93.97			396.4	±	2.3

## Sample 9: J = 0.009335

550	123.12	0.19306	5.026	0.57	53.99	0.71	873.1	±	45.3
600	79.36	0.16509	3.213	0.30	38.85	0.53	457.1	±	64.6
625	91.45	0.20544	4.770	0.17	34.03	0.63	461.3	±	124.2
665	63.17	0.11065	5.758	0.37	48.96	1.42	459.0	±	44.4
700	29.69	0.01080	4.728	5.74	90.51	11.91	404.9	±	4.6
725	27.79	0.00466	4.659	14.39	96.37	27.18	403.6	±	1.7
750	27.68	0.00467	4.597	13.34	96.33	26.80	402.0	±	1.3
775	27.64	0.00479	4.483	12.76	96.16	25.46	400.8	±	2.6
800	27.81	0.00543	4.477	11.48	95.50	22.42	400.5	±	1.9
825	27.72	0.00425	4.464	15.88	96.75	28.58	404.1	±	0.9
850	27.45	0.00379	4.431	18.65	97.20	31.83	402.2	±	1.0
875	31.59	0.01852	4.405	3.01	83.78	6.47	399.3	±	5.5
900	43.37	0.06329	4.230	1.02	57.65	1.82	379.4	±	21.6
Fusion	53.81	0.09515	4.298	2.32	48.38	1.23	393.4	±	10.1
Total	29.60	0.01028	4.519	100.00	93.54	24.72	405.1	±	3.2
Total without 550-665, 850, 875°C and fusion				92.25			402.4	±	1.8

Table 6. Continued (Page 8).

## Sample 10A: J = 0.009375

550	36.48	0.03610	3.105	4.65	71.42	2.34	394.9	±	6.4
600	31.62	0.02176	0.826	3.26	79.86	1.03	383.5	±	11.6
625	35.29	0.03601	1.323	1.77	70.14	1.00	376.7	±	20.3
665	32.90	0.02897	2.556	2.08	74.59	2.40	374.1	±	12.6
700	32.81	0.02758	4.692	2.38	76.29	4.63	381.3	±	9.4
725	31.82	0.02003	6.071	3.84	82.91	8.24	400.1	±	3.8
750	29.21	0.01185	6.509	6.59	89.79	14.95	398.0	±	3.0
775	28.12	0.00847	6.380	10.06	92.90	20.48	396.6	±	2.8
800	27.19	0.00448	6.024	28.69	96.89	36.55	399.5	±	1.3
825	27.22	0.00460	6.158	16.47	96.80	36.41	399.7	±	1.8
850	27.46	0.00483	6.058	11.37	96.56	34.13	401.9	±	1.8
Fusion	35.18	0.03027	5.984	8.84	75.92	5.38	404.5	±	2.8
Total	29.31	0.01195	5.624	100.00	90.41	24.52	397.8	±	3.3
Total without 550-700°C				85.86			400.0	±	2.0

## Sample 12: J = 0.009368

550	89.62	0.16308	5.556	2.87	46.72	0.93	598.9	±	7.2
600	62.59	0.11794	5.580	1.32	45.03	1.29	424.1	±	33.1
625	72.44	0.15828	7.274	0.72	36.23	1.25	398.3	±	34.5
665	60.05	0.11893	10.088	1.06	42.82	2.31	391.7	±	43.6
700	36.44	0.03391	12.218	4.51	75.18	9.80	415.1	±	6.2
725	30.82	0.01480	12.348	14.87	89.01	22.70	415.6	±	2.2
750	31.19	0.01536	12.284	10.20	88.60	21.76	418.3	±	3.3
775	31.36	0.01874	12.201	8.61	85.45	17.71	407.0	±	2.6
800	29.87	0.01171	12.105	12.16	91.65	28.11	414.8	±	1.4
825	30.00	0.00910	12.082	25.64	94.25	36.11	426.9	±	1.0
850	30.75	0.01305	11.940	10.06	90.56	24.88	421.1	±	2.1
875	33.49	0.02170	11.883	5.91	83.68	14.89	423.5	±	4.7
Fusion	158.72	0.42843	10.403	2.07	20.76	0.66	488.2	±	14.6
Total	36.35	0.03076	11.772	100.00	85.47	23.71	425.4	±	3.7
Total without 550-665°C and fusion				91.96			419.2	±	2.4

Table 6. Continued (Page 9).

## Sample 14: J = 0.009176

540	72.61	0.18328	2.664	0.72	25.70	0.40	285.6	±	28.4
590	70.42	0.21209	5.337	0.33	11.60	0.68	130.8	±	134.1
660	28.23	0.00662	5.041	16.60	94.48	20.70	396.1	±	1.7
690	27.43	0.00379	5.020	25.05	97.36	36.01	396.5	±	0.9
705	27.46	0.00457	5.020	16.69	96.53	29.87	393.9	±	1.4
720	27.38	0.00401	4.988	11.33	97.11	33.81	395.0	±	3.6
735	27.43	0.00475	4.954	11.66	96.31	28.34	392.7	±	2.2
750	27.33	0.00350	4.937	8.13	97.68	38.40	391.5	±	3.8
765	28.24	0.00722	4.968	5.42	93.84	18.71	393.8	±	4.5
780	29.56	0.01144	4.850	3.22	89.86	11.53	394.6	±	5.3
800	52.85	0.09940	4.719	0.45	45.13	1.29	358.0	±	91.4
Fusion	78.25	0.17325	4.947	0.39	35.07	0.78	406.3	±	73.2
Total	28.48	0.00802	4.980	100.00	94.91	29.10	393.8	±	3.7
Total without 540, 590, 780, 800°C and fusion				94.86			395.6	±	2.4

## Sample 15A: J = 0.009100

600	53.42	0.09051	4.495	7.13	50.60	1.35	397.7	±	3.9
640	49.13	0.07752	12.847	2.31	55.47	4.51	402.6	±	16.3
660	48.23	0.07238	14.730	1.54	58.09	5.54	413.1	±	8.5
680	36.16	0.03906	13.989	2.80	71.18	9.74	382.7	±	4.7
700	32.59	0.02579	13.420	5.22	79.91	14.15	386.7	±	4.9
715	33.83	0.02544	13.472	3.55	80.96	14.40	404.6	±	7.0
730	33.90	0.02862	13.197	4.15	77.77	12.54	394.6	±	10.3
745	32.18	0.02019	13.384	5.35	84.78	18.03	403.1	±	5.3
765	32.84	0.02094	13.388	6.26	84.42	17.39	409.0	±	2.8
780	31.42	0.01707	13.168	13.95	87.30	20.98	405.1	±	2.2
795	31.59	0.01923	12.946	11.35	85.29	18.31	398.5	±	2.3
810	34.95	0.03388	12.785	5.50	74.06	10.27	389.4	±	5.8
825	34.02	0.02589	12.806	8.09	80.52	13.45	404.4	±	4.2
Fusion	85.36	0.20067	12.904	22.82	33.30	1.75	406.8	±	2.0
Total	47.31	0.07058	12.505	100.00	67.90	11.44	405.2	±	3.7
Total without 600-680°C				86.22			406.4	±	3.4

Table 6. Continued (Page 10).

Sample 21: J = 0.008708							
500	745.01	1.60154	36.340	0.26	36.87	0.62	2233.0 ± 201.9
600	726.99	1.95306	52.042	0.33	21.19	0.72	1569.6 ± 144.3
700	495.11	1.49331	49.552	0.70	11.68	0.90	755.1 ± 81.3
750	90.08	0.20865	48.464	2.96	35.87	6.32	459.8 ± 10.1
775	47.25	0.06943	48.248	10.95	64.77	18.90	438.1 ± 2.6
800	45.38	0.05937	45.611	10.30	69.41	20.90	448.8 ± 2.9
825	40.51	0.04671	45.079	11.34	74.86	26.25	433.8 ± 1.3
850	34.31	0.02432	46.051	46.10	89.83	51.51	440.3 ± 1.5
875	41.24	0.03391	45.989	11.04	84.65	36.88	491.5 ± 2.2
900	51.04	0.06189	44.470	3.19	71.15	19.54	508.2 ± 3.2
Fusion	107.21	0.23933	28.534	2.82	36.17	3.24	533.2 ± 4.7
Total	49.92	0.06987	45.674	100.00	78.09	35.93	461.8 ± 3.6
Total without 500-750, 875, 900°C and fusion				78.88			439.9 ± 2.4

\* measured.

<sup>c</sup>corrected for post-irradiation decay of  $^{37}\text{Ar}$  (35.1 day 1/2-life).

<sup>+</sup>[ $^{40}\text{Ar}_{\text{tot.}}$  - ( $^{36}\text{Ar}_{\text{atmos.}}$ ) (295.5)] /  $^{40}\text{Ar}_{\text{tot.}}$

<sup>\*\*</sup>calculated using correction factors of Dalrymple et al. (1981); two sigma,  
intralaboratory errors.

Table 7.  $^{36}\text{Ar}/^{40}\text{Ar}$  vs.  $^{39}\text{Ar}/^{40}\text{Ar}$  isotope correlations for hornblende concentrates from Vestraden, Norway.

Sample	Increments (°C)	% $^{39}\text{Ar}$ released	Age*	$^{40}\text{Ar}/^{36}\text{Ar}^{**}$	MSWD
Roan Window					
2	690-770	88.24	$398.6 \pm 12.9$	$10,642.9 \pm 106.3$	0.40
4	685-745	79.86	$418.8 \pm 14.6$	$6,668.6 \pm 181.3$	1.78
Vestranden Gneiss Complex					
Orthogneisses					
5	785-Fusion	89.35	$405.9 \pm 4.4$	$615.5 \pm 52.1$	0.65
6	775-Fusion	98.21	$391.1 \pm 1.2$	$288.3 \pm 6.0$	0.51
11	715-Fusion	94.91	$407.1 \pm 1.2$	$438.9 \pm 12.5$	1.51
16	590-740	95.69	$411.0 \pm 1.1$	$432.9 \pm 14.1$	0.98
18B	650-740	77.36	$397.6 \pm 3.1$	$2508.2 \pm 65.2$	0.53
19	765-875	82.89	$386.2 \pm 5.9$	$4883.6 \pm 130.2$	5.43
20	750-875	92.31	$387.9 \pm 3.2$	$2594.9 \pm 175.1$	2.9
Supracrustal gneisses					
7	715-Fusion	96.16	$395.8 \pm 1.5$	$287.9 \pm 5.2$	1.07
8A	670-785	93.97	$394.0 \pm 0.9$	$292.2 \pm 1.7$	0.38
9	700-850	92.25	$400.6 \pm 1.2$	$327.4 \pm 16.3$	0.46
10A	725-Fusion	85.86	$398.8 \pm 1.0$	$286.5 \pm 11.0$	0.41
12	700-875	91.96	$424.2 \pm 1.6$	$263.6 \pm 3.6$	2.25
14	660-765	94.86	$393.8 \pm 1.1$	$315.2 \pm 9.7$	1.42
15A	700-Fusion	86.22	$396.6 \pm 0.9$	$306.0 \pm 4.1$	1.28
21	775-850	78.88	$429.3 \pm 0.9$	$392.5 \pm 5.1$	0.37

\* Based on the inverse abscissa intercept.

\*\* Inverse ordinate intercept.

Table 8.  $^{40}\text{Ar}/^{39}\text{Ar}$  analytical data for incremental heating experiments on muscovite concentrates from Vestranden, Norway.

Release temp ( $^{\circ}\text{C}$ )	$(^{40}\text{Ar}/^{39}\text{Ar})^*$	$(^{36}\text{Ar}/^{39}\text{Ar})^*$	$^{39}\text{Ar}$ % of total	$\chi^{40}\text{Ar}$ non-atmos. +	Apparent Age (Ma)**
-------------------------------------	-------------------------------------	-------------------------------------	-----------------------------	-----------------------------------	---------------------

Vestranden Gneiss Complex

Orthogneisses

Sample 13:  $J = 0.009078$

480	33.18	0.02427	1.93	78.41	382.6 ± 15.3
505	29.70	0.00814	3.03	91.88	399.3 ± 8.7
525	28.61	0.00576	11.51	94.03	394.3 ± 2.7
555	28.28	0.00575	10.09	93.97	389.9 ± 3.2
590	27.99	0.00424	28.77	95.50	392.0 ± 1.2
640	28.03	0.00445	9.09	95.29	391.7 ± 2.8
700	28.09	0.00443	12.64	95.32	392.6 ± 2.1
750	27.95	0.00477	17.02	94.93	389.3 ± 1.9
Fusion	27.82	0.00424	5.92	95.47	389.8 ± 3.3
Total	28.24	0.00521	100.00	94.60	391.6 ± 2.1
Total without 480 and 505 °C			95.04		391.5 ± 1.6

Sample 17:  $J = 0.009085$

475	35.65	0.03195	1.05	73.51	385.3 ± 6.5
490	30.62	0.01001	1.60	90.33	404.4 ± 4.1
510	28.41	0.00455	4.92	95.25	396.5 ± 1.6
525	28.10	0.00460	4.06	95.13	392.2 ± 1.7
540	28.73	0.00657	8.34	93.22	392.8 ± 0.7
560	28.40	0.00571	12.82	94.04	391.9 ± 0.9
580	27.81	0.00368	12.40	96.06	391.9 ± 0.6
610	27.63	0.00416	14.59	95.53	387.8 ± 2.5
650	27.94	0.00532	9.02	94.36	387.3 ± 2.9
685	28.30	0.00558	6.57	94.16	391.1 ± 2.3
715	27.93	0.00466	14.72	95.05	389.7 ± 2.3
745	27.66	0.00429	8.91	95.40	387.7 ± 3.1
780	34.10	0.03346	0.92	71.02	358.8 ± 10.1
Fusion	108.80	0.34989	0.08	4.87	84.8 ± 180.1
Total	28.27	0.00573	100.00	94.30	390.1 ± 2.1
Total without 475, 490, 780 °C and fusion			96.36		390.4 ± 1.8

Table 8. Continued (page 2).

Sample 18B: J = 0.009182

480	33.74	0.02696	2.19	76.37	383.1	$\pm$	9.9
505	30.12	0.01142	6.48	88.79	396.0	$\pm$	5.1
520	28.59	0.00686	8.63	92.89	393.6	$\pm$	3.6
550	28.22	0.00517	8.06	94.57	395.3	$\pm$	4.1
580	28.36	0.00541	5.68	94.35	396.2	$\pm$	3.7
610	28.02	0.00446	13.70	95.27	395.4	$\pm$	1.8
660	27.84	0.00419	17.76	95.53	394.1	$\pm$	1.2
710	28.17	0.00503	22.06	94.70	395.2	$\pm$	1.3
760	28.49	0.00577	14.79	94.00	396.5	$\pm$	1.6
Fusion	68.16	0.14562	0.66	36.85	374.3	$\pm$	22.1
Total	28.70	0.00692	100.00	93.47	394.8	$\pm$	2.2
Total without 480°C and fusion			97.15		395.2	$\pm$	1.9

## Supracrustal gneisses

Sample 8B: J = 0.009176

480	31.32	0.02045	1.85	80.72	376.3	$\pm$	5.2
500	29.40	0.01181	0.92	88.13	384.8	$\pm$	11.3
520	28.36	0.00540	15.72	94.36	396.2	$\pm$	0.9
540	27.80	0.00452	14.71	95.18	392.2	$\pm$	1.1
565	27.28	0.00331	11.95	96.40	390.0	$\pm$	1.5
590	27.23	0.00281	13.36	96.93	391.3	$\pm$	1.1
625	27.34	0.00332	8.54	96.39	390.7	$\pm$	1.7
675	27.66	0.00491	7.56	94.74	388.7	$\pm$	1.8
720	27.58	0.00425	13.41	95.43	390.2	$\pm$	0.9
760	27.47	0.00370	10.83	96.01	390.9	$\pm$	1.0
Fusion	44.51	0.05775	1.16	61.66	405.2	$\pm$	7.3
Total	27.91	0.00506	100.00	94.90	391.4	$\pm$	1.7
Total without 480 and 500°C and fusion			96.07		391.6	$\pm$	1.2

Table 8. Continued (page 3).

Sample 10B: J = 0.009102

500	33.72	0.02380	1.83	79.13	382.1	$\pm$	7.8
550	29.04	0.00661	7.01	93.26	397.4	$\pm$	2.6
600	27.85	0.00380	20.26	95.95	392.6	$\pm$	1.2
675	27.31	0.00208	32.37	97.73	392.3	$\pm$	1.5
750	27.81	0.00340	12.16	96.37	393.6	$\pm$	0.9
825	27.39	0.00191	25.63	97.91	394.0	$\pm$	1.0
Fusion	51.36	0.07897	0.75	54.57	409.9	$\pm$	7.4
Total	27.92	0.00384	100.00	96.27	393.4	$\pm$	1.5
Total without 500°C and fusion			97.42		393.0	$\pm$	1.2

Sample 15B: J = 0.009155

480	31.88	0.03041	1.49	71.84	343.5	$\pm$	7.4
505	29.89	0.00926	3.40	90.83	400.5	$\pm$	5.0
525	28.32	0.00427	4.38	95.53	399.2	$\pm$	4.3
555	27.75	0.00313	8.44	96.65	396.1	$\pm$	2.0
590	27.38	0.00323	12.82	96.49	390.8	$\pm$	2.2
640	27.22	0.00203	18.93	97.77	393.4	$\pm$	1.7
700	27.29	0.00248	17.39	97.30	392.6	$\pm$	1.5
750	27.46	0.00340	15.93	96.32	391.2	$\pm$	1.9
Fusion	27.32	0.00238	17.23	97.41	393.3	$\pm$	2.0
Total	27.56	0.00340	100.00	96.42	392.5	$\pm$	1.9
Total without 480 and 505°C			90.74		392.7	$\pm$	1.5

<sup>\*</sup>measured.

$$+ [{}^{40}\text{Ar}_{\text{tot.}} - ({}^{36}\text{Ar}_{\text{atmos.}}) (295.5)] / {}^{40}\text{Ar}_{\text{tot.}}$$

\*\*calculated using correction factors of Dalrymple et al. (1981);  ${}^{37}\text{Ar} {}^{39}\text{Ar}$  corrected ratios <0.02 in all analyses; two sigma, intralaboratory errors.

Table 9.  $^{40}\text{Ar}/^{39}\text{Ar}$  analytical data for incremental heating experiments on a biotite concentrate from the supracrustal gneisses, Vestranden Gneiss Complex, Norway.

Release temp ( $^{\circ}\text{C}$ )	$(^{40}\text{Ar}/^{39}\text{Ar})^*$	$(^{36}\text{Ar}/^{39}\text{Ar})^*$	$^{39}\text{Ar}$ % of total	$\chi^{40}\text{Ar}$ non-atmos. <sup>+</sup>	Apparent Age (Ma)**
Sample 10B: $J = 0.009365$					
475	22.96	0.01172	5.34	84.91	302.6 $\pm$ 2.9
500	28.03	0.00434	2.79	95.41	403.2 $\pm$ 1.7
550	27.23	0.00195	8.87	97.86	401.9 $\pm$ 1.7
675	26.62	0.00118	24.08	98.67	396.7 $\pm$ 0.7
750	26.96	0.00248	14.48	97.36	397.0 $\pm$ 1.1
850	26.31	0.00108	41.19	98.77	393.0 $\pm$ 0.6
Fusion	39.67	0.04327	3.25	67.76	405.0 $\pm$ 2.4
Total	27.00	0.00341	100.00	96.62	392.8 $\pm$ 1.0
Total without 475 and 500°C and fusion				88.62	395.3 $\pm$ 0.8

\* measured.

+ [ $^{40}\text{Ar}_{\text{tot.}} - (^{36}\text{Ar}_{\text{atmos.}}) (295.5)$ ] /  $^{40}\text{Ar}_{\text{tot.}}$

\*\* calculated using correction factors of Dalrymple et al. (1981);  $^{37}\text{Ar}^{39}\text{Ar}$  corrected ratios <0.02 in all analyses; two sigma, intralaboratory errors.