

Table 2

Sm and Nd isotopic data for granitoids from the Grampian Highlands

Sample	Age [Ma]	Sm [ppm]	Nd [ppm]	$^{147}\text{Sm}/^{144}\text{Nd}$	$^{143}\text{Nd}/^{144}\text{Nd}$	$2\sigma_{(\text{mean})}$	$\varepsilon_{\text{Nd(t)}}$	T_{DM} [Ga]
Collision stage								
RC-15	511	3.55	16.98	0.1263	0.511683 ± 12		-14.1	2.3
DH-2	481	1.44	5.29	0.1646	0.511835 ± 12		-13.7	2.3
M-4	452	3.89	25.03	0.0939	0.511759 ± 12		-11.2	2.0
GK-3	451	1.99	9.26	0.1299	0.511866 ± 12		-11.2	2.0
Subduction stage								
P-22	425	12.29	72.23	0.1028	0.512165 ± 14		-4.1	1.4
P-25	425	5.38	17.00	0.1912	0.512306 ± 12		-6.2	1.6
P-27	425	10.69	52.57	0.1229	0.512080 ± 12		-6.9	1.5
MC-5	420	3.99	25.96	0.0930	0.512201 ± 12		-3.0	1.3
GD-16	419	4.75	22.87	0.1256	0.512141 ± 12		-5.9	1.5
GG-11	415	3.71	9.94	0.2259	0.512388 ± 11		-6.4	1.6
GG-12	415	6.41	37.93	0.1021	0.512272 ± 12		-2.1	1.2
B-13	408	5.92	36.52	0.0981	0.512113 ± 12		-5.1	1.5
MB-19	406	4.52	26.58	0.1028	0.512169 ± 12		-4.3	1.4
LL-9	406	6.51	35.98	0.1094	0.512187 ± 12		-4.3	1.4
Published data of following intrusions								
Ben Vuirich ^a	590	6.32	25.49	0.1498	0.512183 ± 10		-5.3	1.7
Ben Vuirich ^a	590	9.12	43.58	0.1262	0.512146 ± 7		-4.3	1.6
Ben Vuirich ^a	590	3.58	13.07	0.1654	0.512195 ± 8		-6.3	1.7
Ben Vuirich ^a	590	12.78	66.09	0.1167	0.512088 ± 9		-4.7	1.6
Ben Vuirich ^a	590	12.05	51.21	0.1421	0.512120 ± 7		-6.0	1.7
Ben Vuirich ^a	590	9.31	39.96	0.1405	0.512096 ± 11		-6.3	1.7
Ben Vuirich ^b	590	8.54	38.70	0.1326	0.512137 ± 32		-4.9	1.6
Strichen ^b	467	8.04	44.67	0.1082	0.511821 ± 16		-10.7	2.0
Aberdeen ^b	470	11.40	57.08	0.1212	0.511766 ± 41		-12.5	2.1
Strathspey ^c	449	3.01	19.00	0.0957	0.511735 ± 23		-11.8	2.1
Findhorn ^d	443	2.59	11.14	0.1407	0.411930 ± 18		-10.7	2.0
Strath Ossian ^d	428	5.24	23.33	0.1357	0.512151 ± 20		-6.2	1.6
Foyers ^b	426	9.93	59.90	0.0996	0.512009 ± 30		-7.0	1.7
Foyers ^b	426	12.50	72.05	0.1043	0.511963 ± 24		-8.1	1.8
Foyers ^b	426	4.48	34.04	0.0792	0.511883 ± 29		-8.3	1.8
Foyers ^b	426	1.77	12.69	0.0839	0.511971 ± 22		-6.9	1.7
Foyers ^b	426	2.42	16.71	0.0870	0.511993 ± 31		-6.6	1.6
Foyers ^b	426	1.76	13.06	0.0811	0.512026 ± 26		-5.7	1.6
Lochnagar ^d	417	5.06	30.21	0.1012	0.512236 ± 22		-2.8	1.3
Hill of Fare ^d	403	5.11	25.51	0.1210	0.512339 ± 31		-1.9	1.3

$\varepsilon_{\text{Nd(t)}}$ values were calculated for magmatic ages (see appendix for references). T_{DM} ages were calculated according to the two-stage model of Liew & Hofmann (1988). The model considers two stages of differentiation, separation to a depleted mantle reservoir and to a continental crust reservoir. Isotope data of a) Tanner et al. (2006), b) Hamilton et al. (1980), c) Clayburn (1988), and d) Halliday (1984) were recalculated with the new zircon ages reported by Oliver et al. (this issue). The $\varepsilon_{\text{Nd(t)}}$ values of Aberdeen and Lochnagar intrusions were calculated with the monazite ages of Kneller & Aftalion (1987) and Parry (pers. com.). The initial ratio of Ben Vuirich granite is based on the TIMS zircon age of Roger et al. (1989).