



Supplement of

Contrasting appinites, vaugnerites and related granitoids from the NW Iberian Massif: insight into mantle and crustal sources

Gumer Galán et al.

Correspondence to: Gumer Galán (gumer.galan@uab.cat) and Gloria Gallastegui (g.gallastegui@igme.es)

The copyright of individual parts of the supplement might differ from the article licence.

Sample	Rb (ppm)	Sr (ppm)	⁸⁷ Rb / ⁸⁶ Sr	⁸⁷ Sr / ⁸⁶ Sr	± 2σ	(⁸⁷ Sr / ⁸⁶ Sr) ₃₁₄	εSr ₃₁₄	Sm (ppm)	Nd (ppm)	¹⁴⁷ Sm / ¹⁴⁴ Nd	¹⁴³ Nd / ¹⁴⁴ Nd	± 2σ	(¹⁴³ Nd / ¹⁴⁴ Nd) ₃₁₄	εNd ₃₁₄	T _{CR} (Ga)
VIVERO															
Ultramafic appinites															
VGI-1	13.4	53.4	0.725	0.70973	0.00005	0.7065	33	nd ¹	nd	nd	nd				
VGI-2	8.51	28.2	0.874	0.71005	0.00005	0.7061	29	0.98	3.79	0.156	0.512546	0.000019	0.512225	-0.2	1.47
VGI-3	13.1	65	0.584	0.70923	0.00005	0.7066	35	1.48	4.8	0.187	0.512544	0.000017	0.512160	-1.4	2.83
VGI-4	12.1	66.8	0.523	0.70887	0.00005	0.7065	34	1.47	4.82	0.184	0.512549	0.000022	0.512170	-1.2	2.63
VGI-5	31.1	68.7	1.312	0.71420	0.00005	0.7083	60	3.82	14.7	0.157	0.512540	0.000016	0.512217	-0.3	1.50
VGI-6	36.6	107	0.994	0.71082	0.00005	0.7064	32	2.39	9.92	0.146	0.512429	0.000014	0.512129	-2.0	1.50
VGI-7	34.8	142	0.707	0.70953	0.00005	0.7064	32	nd	nd	nd	nd				
VGI-9	25.8	81.9	0.914	0.71026	0.00005	0.7062	29	2.4	8.33	0.175	0.512522	0.000017	0.512163	-1.4	2.15
VGI-10	21.6	84.6	0.738	0.70966	0.00005	0.7064	32	nd	nd	nd	nd				
VGI-11	16.8	85.9	0.566	0.70919	0.00005	0.7067	36	2.57	8.81	0.177	0.512489	0.000018	0.512126	-2.1	2.37
Mafic appinites															
VGI-12	145	495	0.848	0.71022	0.00002	0.7064	33	12	4.87	0.137	0.512411	0.000018	0.512129	-2.0	1.37
VGI-13	115	328	1.015	0.71055	0.00002	0.7060	27	13	5.56	0.140	0.512516	0.000015	0.512228	-0.1	1.23
VGI-14	110	470	0.762	0.71071	0.00002	0.7073	45	nd	nd	nd	nd				
VGI-34	68.9	342	0.583	0.70999	0.00002	0.7074	46	34	3.62	0.142	0.512327	0.000017	0.512035	-3.9	1.63
VGI-17	131	348	1.089	0.71131	0.00002	0.7064	33	nd	nd	nd	nd				
VGI-21	105	365	0.832	0.71006	0.00002	0.7063	31	7.32	32.5	0.136	0.512411	0.0014	0.512131	-2.0	1.36
Granitoids															
Tonalites															
VGI-15	98.1	443	0.641	0.71029	0.00002	0.7074	47	5.47	27	0.122	0.512255	0.000018	0.512004	-4.5	1.41
VGI-16	103	421	0.708	0.71032	0.00001	0.7072	43	nd	nd	nd	nd				
VGI-18	84.9	546	0.71	0.70984	0.00002	0.7067	36	2.75	12.6	0.132	0.512329	0.000012	0.512058	-3.4	1.44
VGI-22	123	349	1.021	0.71106	0.00002	0.7065	34	5.78	26.9	0.130	0.512391	0.000009	0.512124	-2.1	1.30
VGI-25	114	433	0.766	0.71080	0.00002	0.7074	46	nd	nd	nd	nd				
VGI-28	131	349	1.092	0.71187	0.00002	0.7070	41	nd	nd	nd	nd				
Granodiorites															
VGI-19	122	401	0.885	0.71215	0.00002	0.7082	58	nd	nd	nd	nd				
VGI-23	139	364	1.116	0.71282	0.00001	0.7078	53	3.36	17.1	0.118	0.512242	0.000018	0.512000	-4.6	1.37
VGI-24	133	402	0.962	0.71222	0.00001	0.7079	54	nd	nd	nd	nd				
VGI-35	122	432	0.824	0.71183	0.00001	0.7081	57	6.15	34.3	0.109	0.512185	0.000012	0.511962	-5.3	1.33
Monzonitic granites															
VGI-20	137	379	1.046	0.71274	0.00002	0.7081	56	6.85	38.7	0.107	0.512136	0.000014	0.511916	-6.2	1.38
VGI-29	162	554	0.846	0.71218	0.00001	0.7084	61	7.05	40.3	0.106	0.512139	0.000009	0.511922	-6.1	1.36

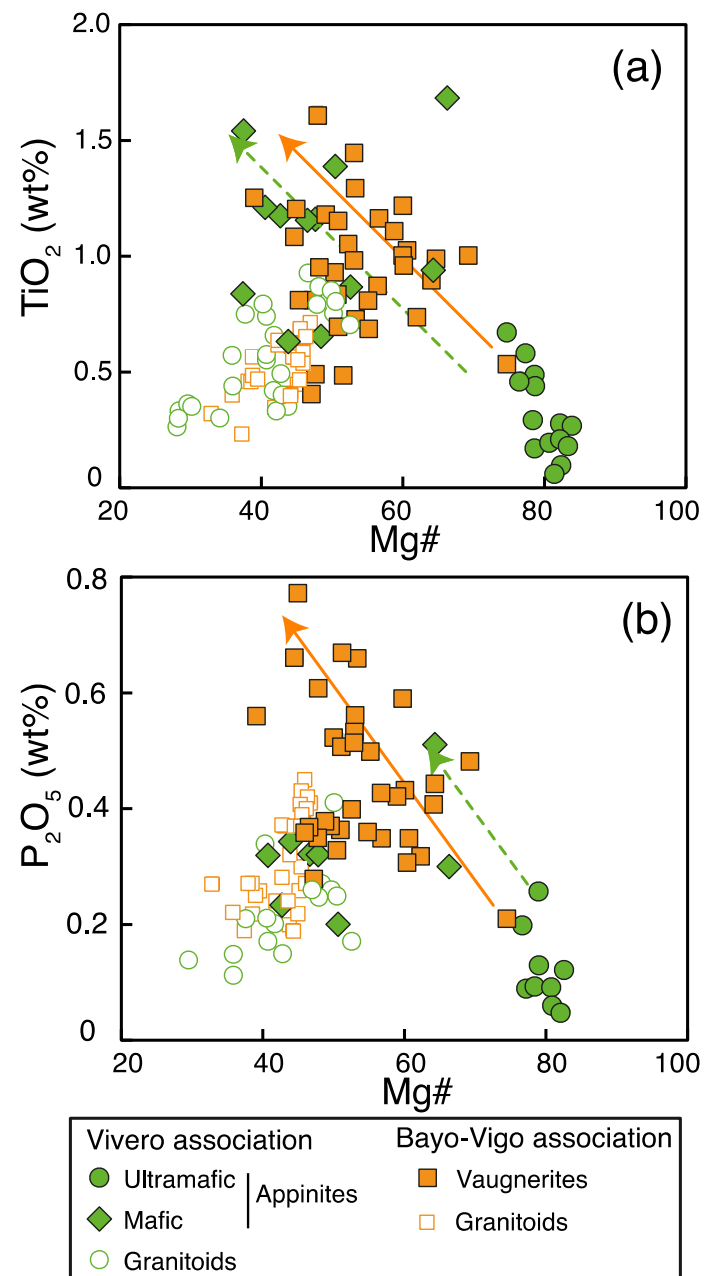
¹ Non determined

Table S1 Rb, Sr, Sm, Nd concentrations and isotopic compositions of the Vivero appinite-granitoid association (Galán et al. 1996) and of Bayo-Vigo vaugnerite-granitoid association (Gallastegui 2005). T_{CR} estimates after Goldstein et al. (1984).

Sample	Rb (ppm)	Sr (ppm)	⁸⁷ Rb / ⁸⁶ Sr	⁸⁷ Sr / ⁸⁶ Sr	± 2σ	(⁸⁷ Sr / ⁸⁶ Sr) ₃₂₀	εSr ₃₂₀	Sm (ppm)	Nd (ppm)	¹⁴⁷ Sm / ¹⁴⁴ Nd	¹⁴³ Nd / ¹⁴⁴ Nd	± 2σ	(¹⁴³ Nd / ¹⁴⁴ Nd) ₃₂₀	εNd ₃₂₀	T _{CR} (Ga)
BAYO-VIGO															
Vaugnerites															
243	177	476	1.073	0.7093	0.0001	0.7044	0.8	nd ¹	nd	nd	nd				
290	132	1058	0.361	0.7110	0.0001	0.7093	71	nd	nd	nd	nd				
159								8.76	61.59	0.0856	0.512209	0.000007	0.512030	-3.8	1.08
Granitoids															
Granodiorites															
247	254	304	2.423	0.7190	0.0001	0.7080	52	nd	nd	nd	nd				
167	278	314	2.570	0.7196	0.0001	0.7079	51	nd	nd	nd	nd				
115	323	313	2.993	0.7218	0.0001	0.7082	54	nd	nd	nd	nd				
Monzonitic granites															
6904	156	301	1.500	0.7169	0.0001	0.7101	82	nd	nd	nd	nd				

¹Non determined

Table S1 Continued



SI Figure S1 (a) TiO_2 vs. Mg# diagram for the appinitic and vaugneritic associations (b) P_2O_5 vs. Mg# diagram.

