

Compilation of Ar–Ar and K–Ar ages for the South Atlantic post-break-up magmatism

Age (Ma)	error	Method	mineral/rock	Comment	Lat (S)	Long	Reference
0.58	0.1	40Ar/39Ar	whole rock/basalt	AG51-3-6, Gough Island dredge sample; plateau	40.3	-10	O'Connor & le Roex (1992) South Atlantic hot spot-plume systems. 1: distribution of volcanism in time and space. Earth and Planetary Science Letters, 113, 343–364.
1.50		40Ar/39Ar	whole rock/melanephelinites	Fm Quixaba (Fernão de Noronha island)	3.51	-32.25	CBPM/IRD, Salvador, 1–24.
2.60	0.6	40Ar/39Ar	plagioclase/altered basalt	SO84 60DS-2; isochron; Josephine Seamount	16.25	-9	O'Connor & le Roex (1992)
2.90		40Ar/39Ar	whole rock/melanephelinites	Fm Remédios (Fernão de Noronha island)	3.51	-32.25	Cordani et al. (2003) Cenozoic alkaline volcanism of Fernando de Noronha island. In: South American Symposium on Isotope Geology. Field Trip Guide.
3.00		K-Ar	whole rock/melanephelinites	Fm Quixaba (Fernão de Noronha island)	3.51	-32.25	Cordani (1970) Idade do vulcanismo no Oceano Atlântico Sul. Boletim de Instituto de Geociência e Astronomia da Universidade de São Paulo, São Paulo, 1, 9–75.
3.40	2.8	K-Ar	whole rock/mod altered volcanic rock	TG-A-01, Cameroon Line, Tinhosa Granda Island	-1.33	7.27	O'Connor & le Roex (1992)
4.20		40Ar/39Ar	whole rock/melanephelinites	Fm Quixaba (Fernão de Noronha island)	3.51	-32.25	Cordani et al. (2003)
6.60	0.2	40Ar/39Ar	whole rock/basalt	SO84 7DS-1; isochron; Circe Seamount	8.2	-9.3	O'Connor & le Roex (1992)
7.50	1	40Ar/39Ar	plagioclase/altered lava	SO84 53DS-1; isochron; Benjamin Seamount	16.2	-8.5	O'Connor & le Roex (1992)
8.20	0.1	40Ar/39Ar	whole rock/trachyte	AG51-7-1, McNish seamount	40.17	-8.55	O'Connor & le Roex (1992)
10.30	0.6	40Ar/39Ar	plagioclase/altered lava	SO84 43DS-1; Kutzov Seamount	15.1	-8.4	O'Connor & le Roex (1992)
10.80		K-Ar	whole rock/alkali trachyte	Fernão de Noronha island	3.51	-32.25	Cordani (1970) Idade do vulcanismo no Oceano Atlântico Sul. Boletim de Instituto de Geociência e Astronomia da Universidade de São Paulo, São Paulo, 1, 9–75.
11.20		K-Ar	whole rock/phonolite	Fernão de Noronha island	3.51	-32.25	Cordani (1970)
12.30		K-Ar	whole rock/alkali basalt	Fernão de Noronha island	3.51	-32.25	Cordani (1970)
14.20	1.2	40Ar/39Ar	plagioclase/altered lava	SO84 68DS-6; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
14.50	1	40Ar/39Ar	plagioclase/altered lava	SO84 68DS-2; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
14.90	0.2	40Ar/39Ar	plagioclase/altered lava	SO84 68DS-5; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
15.10	0.1	40Ar/39Ar	plagioclase/altered lava	SO84 68DS-2; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
15.10	0.4	40Ar/39Ar	plagioclase/altered lava	M16/1-6; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
15.10	1	40Ar/39Ar	plagioclase/altered lava	M16/1-1; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
15.20	0.6	40Ar/39Ar	whole rock/trachyte	AG51-9-1; Vema Seamount	39.47	-6.22	O'Connor & le Roex (1992)
15.30	2.2	40Ar/39Ar	plagioclase/altered lava	SO84 68DS-1; Bonaparte Seamount	15.5	-7	O'Connor & le Roex (1992)
17.90	0.6	40Ar/39Ar	plagioclase/altered lava	SO84 71DS-6; Bagration Seamount	15.36	-6.5	O'Connor & le Roex (1992)
18.00	1	40Ar/39Ar	plagioclase/altered lava	SO84 72DS-2; Bagration Seamount	15.36	-6.5	O'Connor & le Roex (1992)
18.80	0.4	40Ar/39Ar	plagioclase/altered lava	SO84 73DS-1; Bagration Seamount	15.36	-6.5	O'Connor & le Roex (1992)
18.80	0.4	40Ar/39Ar	whole rock/mugearite	AG51-12-3; RSA Seamount	31.63	8.33	O'Connor & le Roex (1992)
18.90	0.6	40Ar/39Ar	plagioclase/altered lava	SO84 74DS-1; Bagration Seamount	15.36	-6.5	O'Connor & le Roex (1992)
28.40	1.2	40Ar/39Ar	whole rock/vesicular plag basalt	All-93-3-1; Walvis Ridge	37.1	-7.78	O'Connor & le Roex (1992)
30.80	0.8	40Ar/39Ar	whole rock/plag basalt/vesicular	All-93-3-25; Walvis Ridge	37.1	-7.78	O'Connor & le Roex (1992)
35.60	0.6	40Ar/39Ar	whole rock/alkali basalt	All-93-8-11; Walvis Ridge	34.5	-3.48	O'Connor & le Roex (1992)
38.00	0.4	40Ar/39Ar	whole rock/alkali-plag basalt	All-93-7-1; Walvis Ridge	34.5	-3.63	O'Connor & le Roex (1992)
38.20	2.2	40Ar/39Ar	whole rock/plag basalt vesicular	All-93-5-3; Walvis Ridge	34.29	-5.02	O'Connor & le Roex (1992)
43.20	4.2	K-Ar	whole rock/basalt	ESS-9; Espírito Santo	19	-39.2	Fodor et al. (1984) K-Ar ages and the opening of the South Atlantic Ocean: basaltic rock from the Brazilian margin. Marine Geology, 54, M1–M8.
44	1	K-Ar	whole rock/basalt	exploration well (CB-1) Abrolhos island	18.01	-38.37	Brazil. Journal of South American Earth Sciences, 18, 383–389.
49.10	2.2	40Ar/39Ar	plagioclase/basalt	BE-113; Benue	-7.7	8.5	Nigeria. Journal of the Geological Society, 152, 311–326.
49.20	11	40Ar/39Ar	whole rock/basalt	All-93-10-11; Walvis Ridge	34.34	-1.57	Motions Over Plumes. Journal of Geophysical Reserch, 95, 17, 475–17, 502.
50	7	K-Ar	whole rock/basalt	well (CB-1) Abrolhos island	18.01	-38.37	Thomaz-Filho et al. (2005)
50.10	2	K-Ar	whole rock/tinguaite	SPK-097; Cabo Frio, Rio de Janeiro	23	-42	Amaral et al. (1967) Potassium-argon ages of alkaline rocks from Southern Brazil. Geochimica et Cosmochimica Acta, 31, 117–142.
50.30	0.8	40Ar/39Ar	whole rock/pl-basalt	V29-9-1; Walvis Ridge	32.63	1.12	O'Connor & Duncan (1990)
52.80	2.1	K-Ar	groundmass/tinguaite	SPK-202; Cabo Frio, Rio de Janeiro	23	-42	Amaral et al. (1967)
52.90	1.2	40Ar/39Ar	whole rock/altered trachyte	AC-D-06, St Helena Seamount 6	8.42	1.55	O'Connor & le Roex (1992)
53	2	K-Ar	whole rock/basalt	well (CB-1) Abrolhos island	18.01	-38.37	Thomaz-Filho et al. (2005)
54	2	K-Ar	whole rock/basalt	well (CB-1) Abrolhos island	18.01	-38.37	Thomaz-Filho et al. (2005)
54.10	2.2	K-Ar	biotite/pulaskite	SPK-504; Cabo Frio, Rio de Janeiro	23	-42	Amaral et al. (1967)
54.2	2	K/Ar	whole rock/tinguaite	KA1826 N/Poços de Caldas alkaline intrusion	21.54	-48.32	Brazil: geologic and geochronologic evidence. Revista Brasileira de Geociências, 32, 15–26.
54.3	3	K/Ar	Amphibole/nepheline syenite	RAA 415/Poços de Caldas alkaline intrusion	21.54	-48.32	Ulbrich et al. (2002)
55	11	K-Ar	whole rock/basalt	well (CB-1) Abrolhos island	18.01	-38.37	Thomaz-Filho et al. (2005)
55	1	Ar/Ar	biotite/syenite	Nova Iguaçu	22.59	42	unpublished data
56.30	4	40Ar/39Ar	plagioclase/dolerite	BE-86; Benue	-5.9	8	Maluski et al. (1995)
57.80	4.4	K-Ar	whole rock/wehrlite	BAS-33; Espírito Santo	17.33	-38.8	Fodor et al. (1984)
58.50	0.10	40Ar/39Ar	whole rock/basalt	BP-M-664 - Rio de Janeiro	22.35	44.35	Guedes et al. (2005) SAES K/Ar and 40Ar/39Ar ages of dykes emplaced in the on-shore basement of the Santos Basin, Resende area, SE Brazil: implications for the south Atlantic opening and Tertiary reactivation. Journal of South American Earth Sciences, 18, 371–182.
59.90	4	40Ar/39Ar	whole rock/aphyric basalt	All-93-14-19; Walvis Ridge	32	2.39	O'Connor & Duncan (1990)
60.20	2	40Ar/39Ar	whole rock/vesicular basalt	All-93-14-1; Walvis Ridge	32	2.39	O'Connor & Duncan (1990)

60.20	2.4 K-Ar	alkali feldspar/malignite	SPK-304, Casimiro de Abreu, Rio de Janeiro	22.5	-42.2 Amaral et al. (1967)
61.2	2 K/Ar	KF/nepheline syenite	KA1833/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
61.60	2.5 K-Ar	whole rock/nepheline syenite	SPK-230, Casimiro de Abreu, Rio de Janeiro	22.5	-42.2 Amaral et al. (1967)
61.7	2 K/Ar	KF/nepheline syenite	KA1833R /Poços de Caldas alkaline intrusion	21.54	Ulbrich et al. (1991) Avaliação das idades K/Ar dos maciços alcalinos do Brasil sul-oriental e do Paraguai Oriental. Boletim do IG-USP: Série Especial, -48.32 9, 87-92.
62.00	2.6 40Ar/39Ar	whole rock/vesicular basalt	All-93-11-8; Walvis Ridge	32.97	0 O'Connor & Duncan (1990)
62.3	2 K/Ar	KF/nepheline syenite	KA1829 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
63.00	3 40Ar/39Ar	plagioclase/rhyolite dike	BE-46; Benue	-7	9 Maluski et al. (1995)
63.6	2 K/Ar	KF/nepheline syenite	KA1822 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
64.00	1.00 40Ar/39Ar	Plagioclase/ Phonolite	BP-M-664; Rio de Janeiro	22.35	44.35 Guedes et al. (2005)
64	1 Ar/Ar	amphibolesyenite	Morro de São João	22.48	-43.29 unpublished data
64.3	1 K/Ar	whole rock/Tinguaité	UC624 1/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
64.70	2.6 K-Ar	whole rock/nepheline syenite	SPK-186, Lajes, Santa Catarina	27.87	-55 Amaral et al. (1967)
64.90	1.6 K-Ar	whole rock/rock/alkali basalt sill	Hole 524, Leg 73; DSDP, Walvis Ridge	29.48	Dietrich et al. (1984) Geochemistry of basalts from holes 519A, 520, 522B, and 524, Deep Sea Drilling Project Leg 73 (South Atlantic). In: Hsu, K. J., 3.51 LaBrecque, J. L. et al. (eds) Initial Reports of the DSDP, 73. US Government Printing Office, Washington, DC, 579-601.
65	1 Ar/Ar	biotita/syenite	Itatiaia	22.32	-42.01 unpublished data
65	1 Ar/Ar	biotita/syenite	Ilha de Cabo Frio	22.49	-42.37 unpublished data
65.30	2.6 K-Ar	whole rock/tinguaité	SPK- 247, UC-624-1,1a; Poços de Caldas, Minas Gerais	22.78	-46.55 Amaral et al. (1967)
65.4	1 K/Ar	whole rock/Tinguaité	Berk6241/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
65.4	2 K/Ar	whole rock/Tinguaité	JB PC 5 1 N /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
65.70	2.6 K-Ar	biotite/nepheline syenite	UC-2a; Itatiaia, Rio de Janeiro	22.37	-44.67 Amaral et al. (1967)
66	1 K/Ar	whole rock/Tinguaité	UC6241a/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
66.2	3 K/Ar	Amphibole/nepheline syenite	RAA 413/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
66.3	3 K/Ar	whole rock/Tinguaité	RAA 417/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
66.70	2.7 K-Ar	biotite/nepheline syenite	SPK-030; Itatiaia, Rio de Janeiro	22.37	-44.67 Amaral et al. (1967)
66.80	2.7 K-Ar	feldspar/nepheline syenite	SPK-231, Lajes, Santa Catarina	27.83	-50.3 Amaral et al. (1967)
67	1 Ar/Ar	amphibolesyenite	Tinguá	22.26	-44.36 unpublished data
67.2	3 K/Ar	wr/dyke	São Sebastião Island	23.47	Montes-Lauar et al. (1995) Late Cretaceous alkaline complexes, southeastern Brazil: paleomagnetism and geochronology. Earth and Planetary Science Letters, 134, 425-440.
67.80	2.7 K-Ar	biotite,barkevite/nepheline syenite	SPK-045,-058; Itatiaia, Rio de Janeiro	22.4	-44.67 Amaral et al. (1967)
67.80	2.7 K-Ar	biotite/nepheline syenite	SPK-232; Tinguá, Rio de Janeiro	22.58	-43.4 Amaral et al. (1967)
68.40	2.7 K-Ar	biotite/quartz syenite	SPK-081; Itatiaia, Rio de Janeiro	22.37	-44.7 Amaral et al. (1967)
68.40	2.7 K-Ar	feldspar/nepheline syenite	SPK-185, Lajes, Santa Catarina	27.83	-50.22 Amaral et al. (1967)
68.80	2.7 K-Ar	biotite/syenite	SPK-044; Itatiaia, Rio de Janeiro	22.33	-44.73 Amaral et al. (1967)
69.00	1.00 40Ar/39Ar	Biotite/ syenite	BP-IV-24a- Rio de Janeiro	22.35	44.35 Guedes et al. (2005)
69.70	0.4 40Ar/39Ar	biotite/alkali basalt dike	RJ-7560; Rio de Janeiro	22.62	Deckart et al., (1998) New time constraints on dyke swarms related to the Parana-Etendeka magmatic province, and subsequent South Atlantic -43.66 opening, southeastern Brazil. Journal of Volcanology and Geothermal Research, 80, 67-83.
69.70	2.8 K-Ar	Alkali feldspar/nepheline syenite	SPK-270; Rio Bonito, Rio de Janeiro	22.7	-42.6 Amaral et al. (1967)
70.00	1.00 40Ar/39Ar	Plagioclase/ syenite	BP-IV-24a - Rio de Janeiro	22.35	44.35 Guedes et al. (2005)
70.00	0.10 40Ar/39Ar	Plagioclase/ syenite	BP-IV-24a - Rio de Janeiro	22.35	44.35 Guedes et al. (2005)
71	1 Ar/Ar	amphibolesyenite	Morro Redondo	22.36	-43.28 unpublished data
71.1	2 K/Ar	whole rock/Tinguaité	JB PC 5 3 N /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
71.50	7 K-Ar	whole rock/basalt	RJS-87; Campos	21.83	-41 Fodor et al. (1984)
71.7	3 K/Ar	KF/nepheline syenite	RAA 415/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
72.30	2.9 K-Ar	Alkali feldspar/nepheline syenite	SPK-507; Rio Bonito, Rio de Janeiro	22.7	-42.6 Amaral et al. (1967)
72.4	3 K/Ar	KF/nepheline syenite	RAA 419/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
72.50	1 40Ar/39Ar	biotite/alkali basalt dike	RJ-7583; Rio de Janeiro	22.86	-43.73 Deckart et al. (1998)
72.70	2.9 K-Ar	K-spar,groundmass/tinguaité	SPK-223,-224; Pico Marapicu, Rio de Janeiro	22.85	-43.45 Amaral et al. (1967)
73.20	2.9 K-Ar	barkevite/nepheline syenite	SPK-234; Pico Marapicu, Rio de Janeiro	22.85	-43.45 Amaral et al. (1967)
73.60	3.2 K-Ar	whole rock/tholeiitic basalt sill	Hole 524, Leg 73; DSDP; Walvis Ridge	29.48	3.51 Dietrich et al. (1984)
74	1 Ar/Ar	amphibolesyenite	Marapicu	22.29	-44.19 unpublished data
74.2	2 K/Ar	whole rock/Tinguaité	JB PC 4 8 N /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
74.5	2 K/Ar	whole rock/Tinguaité	JB PC 4 4 N /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
74.90	3 K-Ar	barkevite/nepheline syenite	SPK-191; Pico Marapicu, Rio de Janeiro	22.85	-43.45 Amaral et al. (1967)
74.9	2 K/Ar	whole rock/Tinguaité	JB PC 5/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
75.00	3 K-Ar	barkevite/nepheline syenite	SPK-171; Pico Marapicu, Rio de Janeiro	22.85	-43.45 Amaral et al. (1967)
75	1 K/Ar	whole rock/Tinguaité	JB PC 3 8 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
75.20	4.4 K-Ar	whole rock/basalt	RJS-33; Campos	23.83	-42.8 Fodor et al. (1984)
75.4	3 K/Ar	Amphibole/nepheline syenite	RAA 414/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
75.5	3 K/Ar	KF/nepheline syenite	RAA 419/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
75.7	2 K/Ar	whole rock/Tinguaité	JA1820R /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
76	2 K/Ar	whole rock/Tinguaité	KA1820 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
76.9	1 K/Ar	whole rock/Tinguaité	JB PC 3 8/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
77.00	3 K-Ar	wholerock/tinguaité	SPK-051; Poços de Caldas, Minas Gerais	21.9	-46.57 Amaral et al. (1967)
77.1	2 K/Ar	whole rock/Ankaramite	JB PC 2 8 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)

77.5	2 K/Ar	whole rock/Ankaramite	JB PC 2 9 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
77.6	7.8 K/Ar	biotita/alkaline rock	São Sebastião Island	23.47	-45.17 Montes-Lauar et al. (1995)
78	3 K/Ar	KF/nepheline syenite	RAA 418/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
78.20	1 40Ar/39Ar	whole rock/mod altered olivine basalt	AC-D-05A; St Helena Seamount 5	4.28	4.47 O'Connor & le Roex (1992)
78.20	3 K-Ar	whole rock/tinguaite	SPK-287; Poços de Caldas, Minas Gerais	21.87	-46.45 Amaral et al. (1967)
78.2	1 K/Ar	whole rock/Tinguaite	JB PC 2 4 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
78.2	3 K/Ar	KF/nepheline syenite	RAA 416/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
78.4	2 K/Ar	whole rock/Ankaramite	JB PC 1 7 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
78.80	5.6 40Ar/39Ar	biotite/alkali basalt dike	RJ-7581; Rio de Janeiro	22.86	-43.73 Deckart et al. (1998)
79.10	12.6 40Ar/39Ar	whole rock/phyric pl-basalt	DSDP 74-528-40-5, 70-75; Walvis Ridge	28.53	2.32 O'Connor & Duncan (1990)
79.10	1.8 40Ar/39Ar	whole rock/mod altered basalt	AC-D-02E; St Helena Seamount 2	2.32	4.77 O'Connor & le Roex (1992)
80	1 K/Ar	nepheline syenite	Passa Quatro intrusion	22.5	-43.35 unpublished data
80.40	1 40Ar/39Ar	whole rock/mod altered trachyte	AC-D-02H, St Helena Seam 2	2.32	4.77 O'Connor & le Roex (1992)
80.60	3.2 K-Ar	biotite/essexite	SPK-140; Ilha de São Sebastião, São Paulo	23.77	-45.35 Amaral et al. (1967)
81	3 K/Ar	whole rock/Tinguaite	RAA 418/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
81.10	2.2 40Ar/39Ar	plagioclase/hypovolcanic intrusion	BN-02; Benue	-6	7.7 Maluski et al. (1995)
81.60	1.4 40Ar/39Ar	whole rock/mod altered trachyte	AC-D-02B, St Helena Seam 2	2.32	4.77 O'Connor & le Roex (1992)
81.70	3.2 K-Ar	biotite/tinguaite	UC-624-26; Ilha de São Sebastião, São Paulo	23.77	-45.35 Amaral et al. (1967)
81.80	3.6 40Ar/39Ar	biotite/alkali basalt dike	RJ-7578; Rio de Janeiro	22.86	-43.73 Deckart et al. (1998)
81.80	3.2 K-Ar	biotite/rhomb porphyry	SPK-227; Ilha Montao de Trigo, São Paulo	23.88	-45.78 Amaral et al. (1967)
81.90	3.2 K-Ar	K-feldspar/nepheline syenite	SPK-225; Ilha Montao de Trigo, São Paulo	23.88	-45.78 Amaral et al. (1967)
82.00	3.8 40Ar/39Ar	whole rock/aphyric tholeiitic basalt	DSDP 74-525-57-5, 104-106; Walvis Ridge	29.07	2.99 O'Connor & Duncan (1990)
82	2 K/Ar	whole rock/Tinguaite	JB PC 3 6 N/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
82.30	0.2 40Ar/39Ar	plagioclase/alkaline dolerite dike	RJ-7584; Rio de Janeiro	22.86	-43.73 Deckart et al. (1998)
82.30	3.3 K-Ar	biotite/nepheline syenite	SPK-052; Poços de Caldas, Minas Gerais	21.78	-46.65 Amaral et al. (1967)
82.3	1 K/Ar	Biotite/nepheline syenite	JB PC 1 2 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
82.4	2 K/Ar	whole rock/Tinguaite	JB PC 3 1 S /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
82.5	3 K/Ar	Amphibole/nepheline syenite	RAA 420/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
82.7	2 K/Ar	Biotite/nepheline syenite	KA 1832 /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
82.8	6.2 K/Ar	wr/dyke	São Sebastião Island	23.47	-45.17 Montes-Lauar et al. (1995)
82.9	2 K/Ar	whole rock/Tinguaite	KA1821 S /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
82.9	0.1 Ar/Ar	biotita/alkali feldspar syenite	7/Cananéia alkaline intrusion	25.01	Spinelli & Gomes (2008) A ocorrência alcalina de Cananéia, litoral sul do estado de São Paulo: geologia e geocronologia. Boletim Geologia USP: Série Científica, 8, 1–13.
82.9	0.2 Ar/Ar	biotita/alkali feldspar syenite	7/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
83	0.3 K/Ar	biotita/monzonite	rga-18d/Ponte Nova alkaline intrusion	22.47	-45.45 Azzone et al. 2009 Geologia e Geocronologia do Maciço Alcalino Máfico-Ultramáfico Ponte Nova (SP-MG). Geologia USP, 9, 23–46.
83	0.2 Ar/Ar	biotita/alkali feldspar syenite	29/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
83.10	2 40Ar/39Ar	plagioclase/basalt	BE-320; Benue	-6.8	8.5 Maluski et al. (1995)
83.10	3.3 K-Ar	biotite, potassium feldspar/syenite	SPK-177,-178; Ilha de São Sebastião, São Paulo	23.77	-45.35 Amaral et al. (1967)
83.20	3 40Ar/39Ar	K-feldspar/lamprophyre dike	BN-08; Benue	-6.8	8.5 Maluski et al. (1995)
83.3	0.5 Ar/Ar	biotita/quartzo alkali feldspar syenite	36/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008) Gibson et al. (1995) The Late Cretaceous impact of the Trindade mantle plume: evidence for large-volume, mafic, potassic magmatism in SE Brazil.
83.60	1.6 K-Ar	phlogopite/potassic mafic intrusion	915B31, Mata do Lenco, Alto Paranaíba Igneous Province	18.28	-47.42 Journal of Petrology, 26, 189–229.
83.60	2.8 K-Ar	phlogopite/potassic mafic lava	92SOB100a, Carmo do Paranaíba, Alto Paranaíba Igneous Province	18.9	-46.16 Gibson et al. (1995)
83.6	0.5 Ar/Ar	biotita/alkali feldspar syenite	7/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
83.70	3.6 K-Ar	biotite/peridotite	SPK-189,-,228; Serra Negra, Minas Gerais	18.92	-46.83 Amaral et al. (1967)
83.8	0.7 Ar/Ar	biotita/quartz alkali feldspar syenite	9a/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
83.9	0.4 Ar/Ar	biotita/quartz alkali feldspar syenite	36/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
84	2.2 Ar/Ar	biotita/quartz alkali feldspar syenite	9a/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
84.1	0.2 Ar/Ar	biotita/quartz alkali feldspar syenite	36/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
84.40	2.4 40Ar/39Ar	plagioclase/hypovolcanic intrusion	BN-03; Benue	-6	7.7 Maluski et al. (1995)
84.60	3.6 K-Ar	barkevikite/nordmarkite	SPK-110,-225,-083; Cananéia, São Paulo	25.01	-47.75 Amaral et al. (1967)
84.90	3.4 K-Ar	biotite/syenite	SPK-035; Ilha de São Sebastião, SP	23.77	-45.35 Amaral et al. (1967)
84.9	0.7 Ar/Ar	biotita/alkali feldspar syenite	29/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
85.5	3 K/Ar	Pyroxene	VL3 1161/Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
85.6	0.4 Ar/Ar	biotita/alkali feldspar syenite	29/Cananéia alkaline intrusion	25.01	-47.55 Spinelli & Gomes (2008)
85.70	2.4 40Ar/39Ar	K-feldspar/syenite	BN-07; Benue	-6.8	8.5 Maluski et al. (1995)
86.5	3 K/Ar	whole rock/Phonolite	MZ /Poços de Caldas alkaline intrusion	21.54	-48.32 Ulbrich et al. (2002)
86.7	3 K/Ar	biotita/olivine-melanogabbro	rga-58b/Ponte Nova alkaline intrusion	22.47	-45.45 Azzone et al. 2009
86.8	2.9 K/Ar	biotita/monzodiorite	rga-26/Ponte Nova alkaline intrusion	22.47	-45.45 Azzone et al. 2009
87.20	17.8 40Ar/39Ar	whole rock/phyric basalt DSDP	516F-128-1, 22-24; Rio Grande Rise	30.28	-35.29 O'Connor & Duncan (1990)

87.6	3.6 K/Ar	biotita/monzogabbro	rga-83/Ponte Nova alkaline intrusion	22.47	-45.45	Azzone et al. 2009
87.70	2 40Ar/39Ar	plagioclase/hypovolcanic intrusion	BE-804; Benue	-6	7.7	Maluski et al. (1995)
89.3	2 K/Ar	whole rock/Ankaramite	JB PC 1 0 /Poços de Caldas alkaline intrusion	21.54	-48.32	Ulbrich et al. (2002)
91.20	2.2 40Ar/39Ar	whole rock/mugearite	AG51-11-10; 7o East Seamount	37	7	O'Connor & le Roex (1992)
92.00	3 40Ar/39Ar	K-feldspar/rhyolite dike	BE-41; Benue	-7.5	9.3	Maluski et al. (1995)
95.30	2 40Ar/39Ar	K-feldspar/phonolite dike	BE-22; Benue	-6.8	8.5	Maluski et al. (1995)
						Nascimento & Souza (2009) Granito do Cabo de Santo Agostinho, PE Uma rara ocorrência de granito cretáceo no Brasil. In: Winge, M., Schobbenhaus, C., Souza, C. R. G., Fernandes, A. C. S., Queiroz, E. T., Berbert-Born, M. & Campos, D. A. (eds) Sítios Geológicos e Paleontológicos do
101.80	0.5 40Ar/39Ar	feldspar	Cabo de Santo Agostinho, PE	8.21	-34.56	Brasil. CPRM, Brasília, 2, 225–236. http://sigep.cprm.gov.br/sitio111/sitio111_impresso.pdf
102.10	1.5 40Ar/39Ar	biotite	Cabo de Santo Agostinho, PE	8.21	-34.56	Nascimento & Souza (2009)
103.00	3 40Ar/39Ar	amphibol	Cabo de Santo Agostinho, PE	8.21	-34.56	Nascimento & Souza (2009)