

Supplementary file 3. Mayor elements and Norm CIPW

Mayor earth elements results obtained by ICP-MS and XRF. Most of the rock samples includes significant amounts of loss of ignition due to the alteration. Norm CIPW and the Mgv are included at the bottom. nm = no measured. Volcanic clasts from Cerro San Agustín show Na₂O values below the detection limit (0.03). IGLa-1 standard from Lozano and Bernal (2005). Sample AB10-06 is a microbasalt flow, it represents the lava flows which the volcaniclastic units were generated from.

Locality	Cerros de la Ciénega					Cerro Calaveras					Cerro San Agustín			Cerro Rajón						Standard
MAYOR	AB11-20C	AB11-20F	AB11-20O	AB11-20D	AB11-20L	AB11-40C	AB16-02C	AB11-39	AB11-47C	AB16-02A	AB14-05A	AB14-05B	AB10-06B	AB15-08A	AB15-05B	AB15-08B	AB15-05A	AB16-49B	AB16-49D	IGLa-1
SiO ₂	38.27	38.70	44.52	44.82	45.38	29.60	46.78	38.50	43.57	43.95	28.31	29.27	40.90	40.02	41.51	42.64	45.84	42.75	47.52	60.52
TiO ₂	5.20	5.10	4.93	4.69	6.56	5.12	5.03	6.75	3.39	4.87	4.94	3.86	6.49	3.38	3.69	4.08	4.05	6.28	5.25	1.08
Al ₂ O ₃	10.23	9.77	12.11	10.34	12.19	8.17	10.76	10.80	7.49	9.75	7.86	8.79	9.42	9.06	9.37	10.09	11.25	11.43	11.94	17.39
Fe ₂ O ₃	15.11	16.48	11.19	20.17	19.01	8.76	12.87	11.33	9.23	11.79	14.75	13.94	8.85	10.03	12.31	9.10	10.73	14.35	15.80	1.96
FeO	0.30	0.38	0.45	0.70	0.40	2.51	nm	4.61	1.25	nm	nm	nm	6.08	4.10	2.95	4.50	3.50	nm	nm	3.74
MnO	0.15	0.09	0.09	0.09	0.05	0.28	0.15	0.16	0.16	0.16	0.26	0.25	0.20	0.23	0.22	0.23	0.15	0.21	0.14	0.102
MgO	1.66	0.17	0.40	1.85	0.70	1.81	6.84	4.97	5.55	7.69	9.51	12.35	8.86	11.89	10.15	12.15	7.30	8.37	5.12	1.97
CaO	13.77	14.05	10.63	6.86	5.58	20.96	8.80	8.45	14.89	11.68	14.64	13.54	12.90	9.57	9.76	7.22	6.47	7.33	5.24	5.18
Na ₂ O	5.32	5.85	7.16	5.39	6.85	3.63	3.15	0.33	3.18	2.53	<DL	<DL	1.23	1.04	1.64	1.62	2.59	3.21	5.40	4.80
K ₂ O	0.27	0.15	0.23	0.31	0.30	0.85	2.58	2.84	1.19	2.49	1.59	0.72	1.38	3.15	2.71	2.60	3.84	2.18	1.22	2.14
P ₂ O ₅	0.58	0.52	0.76	0.54	0.74	0.55	0.67	1.07	0.48	0.62	0.59	0.64	0.59	0.70	0.82	0.75	0.88	0.84	0.78	0.43
LOI	9.11	8.72	7.45	4.16	2.16	17.49	2.37	9.19	9.35	4.44	16.56	15.93	2.38	6.12	4.47	4.40	2.81	3.00	1.58	0.06
Total	99.96	99.98	99.92	99.92	99.92	99.72	100.00	99.00	99.73	99.97	99.01	99.29	99.28	99.29	99.59	99.38	99.40	99.96	99.99	99.37
Fe ₂ O ₃ /FeO	50.36	43.36	24.86	28.81	47.51	3.49	nm	2.46	7.38	nm	nm	nm	1.46	2.45	4.17	2.02	3.06	nm	nm	0.52
Mg#	20.18	2.31	7.45	17.24	7.84	26.94	55.57	41.54	55.17	60.55	60.27	67.58	67.58	65.73	60.50	66.96	54.02	57.85	43.26	