

Supplementary Table 1. Raw values of inductively coupled plasma mass spectrometry analysis for Otumba samples.

Samples	Li (ppm)	Be (ppm)	Sc (ppm)	V (ppm)	Cr (ppm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Zn (ppm)	Rb (ppm)	Sr (ppm)	Y (ppm)	Zr (ppm)
OT3	31.39	2.49	3.16	5.89	25.28	0.25	0.97	1.46	33.87	103.80	157.41	18.51	123.45
OT5	36.98	3.07	4.85	6.74	28.80	0.39	1.14	1.66	40.54	124.06	186.19	22.75	146.20
OT8	33.93	2.71	6.52	5.85	29.81	0.51	1.32	1.39	37.18	114.25	165.59	20.77	129.96
OT9	40.41	3.23	5.58	6.58	36.81	0.67	1.43	1.53	43.94	133.07	189.34	24.63	148.99
PCO1	42.12	2.84	5.32	2.53	31.52	0.35	1.36	1.46	40.23	121.25	118.06	21.60	103.64
PCO3	40.89	2.88	6.80	2.78	35.83	0.23	1.43	1.58	39.73	120.29	119.96	21.72	106.48
PCO4	37.32	2.66	4.92	2.61	30.83	0.15	1.21	1.55	36.32	111.01	110.13	19.26	96.26
PCO6	38.21	2.68	4.55	2.48	27.93	0.17	0.99	1.38	36.33	112.44	111.84	20.04	94.92
MAL1	36.80	2.62	3.87	2.62	36.71	0.19	1.22	1.58	36.11	108.88	108.81	19.83	95.19
MAL4	37.73	2.56	5.96	2.28	27.56	0.27	1.14	1.29	36.82	110.70	106.74	19.66	94.33
MAL7	31.75	2.23	5.35	2.29	26.63	<0	0.91	1.40	30.64	95.58	92.26	16.46	82.06
MAL8	35.85	2.45	3.93	2.35	28.24	0.08	1.05	1.49	33.91	107.10	102.51	18.92	90.89
RIN1	46.53	3.46	5.75	2.11	37.42	0.10	1.49	1.81	52.69	134.43	97.83	27.93	110.38
RIN2	48.95	3.71	3.00	1.96	35.19	0.15	1.41	1.59	53.83	137.42	99.20	28.56	111.99
IXT1	38.50	2.68	88.25	2.47	25.10	0.20	0.97	1.76	37.72	118.09	114.50	21.42	102.46
IXT3	43.78	3.00	6.96	2.61	32.05	0.33	1.18	1.46	40.85	122.98	123.10	22.26	106.26
IXT5	36.86	2.54	6.09	2.35	26.04	0.17	0.98	1.31	35.25	105.34	102.84	18.46	90.56
IXT8	44.79	2.97	5.50	2.30	23.65	0.26	0.95	1.36	40.37	121.55	115.29	22.40	102.52
IXT10	47.75	3.62	4.05	1.90	38.13	0.20	1.41	1.51	51.76	130.10	93.04	26.79	103.94
IXT10Rep	52.37	3.83	6.21	2.11	43.61	0.21	1.76	1.84	57.16	143.59	103.23	29.80	115.27
	Nb (ppm)	Mo (ppm)	Cd (ppm)	Sn (ppm)	Sb (ppm)	Cs (ppm)	Ba (ppm)	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)
OT3	11.91	2.98	0.04	2.47	0.28	3.31	710.20	25.68	49.10	5.16	17.96	3.43	0.50
OT5	14.40	3.60	0.05	2.98	0.33	3.89	832.22	30.03	57.13	6.06	21.07	3.98	0.56
OT8	13.25	3.30	0.04	2.67	0.31	3.64	761.32	27.56	52.87	5.58	19.71	3.65	0.53
OT9	15.28	3.87	0.06	3.05	0.36	4.13	868.92	31.34	60.56	6.40	22.33	4.21	0.56
PCO1	14.39	3.53	0.04	2.46	0.55	5.24	868.43	28.79	55.24	5.82	20.15	3.84	0.44
PCO3	14.47	3.69	0.04	2.58	0.54	5.23	864.78	29.31	55.95	5.88	20.24	3.82	0.45
PCO4	13.12	3.27	0.04	2.36	0.51	4.89	796.58	26.79	51.14	5.35	18.44	3.63	0.42
PCO6	12.94	3.15	0.03	2.36	0.47	4.85	813.96	27.43	51.53	5.47	19.19	3.52	0.41
MAL1	12.93	3.30	0.04	2.37	0.48	4.72	789.51	27.26	51.08	5.42	18.92	3.60	0.40
MAL4	13.23	3.27	0.04	2.33	0.50	4.75	794.02	26.19	50.80	5.30	18.50	3.49	0.40
MAL7	11.11	2.79	0.03	2.09	0.42	4.25	691.77	23.02	44.10	4.55	16.07	3.09	0.36
MAL8	12.55	3.08	0.03	2.26	0.45	4.65	759.93	25.42	48.93	5.12	17.59	3.36	0.39
RIN1	18.24	3.91	0.06	3.55	0.49	5.17	700.00	26.52	54.06	5.92	21.33	4.28	0.60
RIN2	18.54	3.78	0.05	3.30	0.51	5.26	710.63	26.80	54.53	5.99	21.44	4.37	0.58
IXT1	14.11	3.52	0.03	2.61	0.63	5.15	845.53	28.34	54.10	5.66	19.77	3.74	0.42
IXT3	14.76	3.57	0.04	2.52	0.55	5.20	868.93	29.02	55.36	5.85	20.07	3.80	0.42

IXT5	12.43	3.02	0.03	2.18	0.46	4.63	752.80	25.20	48.03	5.05	17.51	3.27	0.39
IXT8	14.43	3.40	0.04	2.48	0.54	5.15	860.26	28.73	54.42	5.80	20.12	3.83	0.41
IXT10	17.21	3.59	0.04	3.00	0.43	4.90	666.89	25.03	50.95	5.64	20.41	4.09	0.57
IXT10Rep	19.04	4.04	0.05	3.50	0.49	5.33	727.76	27.23	55.54	6.09	21.80	4.42	0.59
	Gd (ppm)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)	Hf (ppm)	Ta (ppm)	Pb (ppm)	Th (ppm)	U (ppm)
OT3	3.11	0.53	2.93	0.61	1.94	0.31	2.10	0.32	4.16	1.22	18.92	10.74	3.23
OT5	3.57	0.61	3.36	0.73	2.21	0.34	2.28	0.35	4.49	1.35	20.23	11.39	3.54
OT8	3.43	0.59	3.28	0.71	2.15	0.32	2.22	0.34	4.31	1.33	20.31	11.57	3.63
OT9	3.87	0.64	3.56	0.79	2.33	0.35	2.36	0.36	4.47	1.40	20.70	11.92	3.75
PCO1	3.46	0.61	3.30	0.72	2.13	0.32	2.16	0.33	3.73	1.34	22.50	11.75	4.04
PCO3	3.36	0.61	3.23	0.69	2.10	0.33	2.17	0.32	3.78	1.31	22.65	11.60	3.91
PCO4	3.21	0.55	3.08	0.64	2.00	0.30	2.04	0.31	3.70	1.33	21.82	11.29	3.85
PCO6	3.19	0.55	3.09	0.66	1.99	0.31	2.04	0.31	3.53	1.23	20.37	11.27	3.68
MAL1	3.28	0.55	3.08	0.65	2.01	0.31	2.07	0.31	3.60	1.29	20.58	11.32	3.72
MAL4	3.12	0.54	3.01	0.64	1.94	0.30	2.00	0.31	3.48	1.26	21.14	10.95	3.79
MAL7	2.76	0.49	2.67	0.55	1.77	0.28	1.89	0.28	3.37	1.21	36.30	10.39	3.48
MAL8	3.02	0.54	2.87	0.61	1.90	0.30	1.95	0.29	3.46	1.23	20.11	10.69	3.59
RIN1	4.04	0.72	4.16	0.91	2.77	0.40	2.73	0.42	4.13	1.65	22.50	9.84	4.09
RIN2	4.04	0.73	4.20	0.93	2.75	0.41	2.74	0.42	4.14	1.64	22.08	9.80	4.09
IXT1	3.40	0.58	3.25	0.67	2.07	0.33	2.15	0.32	3.76	1.47	21.47	11.56	3.88
IXT3	3.45	0.59	3.19	0.69	2.05	0.31	2.08	0.31	3.58	1.28	21.28	11.22	3.81
IXT5	3.06	0.52	2.87	0.62	1.86	0.28	1.96	0.29	3.51	1.26	21.33	10.88	3.69
IXT8	3.40	0.59	3.24	0.71	2.09	0.31	2.10	0.32	3.53	1.30	26.34	11.35	3.78
IXT10	3.85	0.70	3.97	0.88	2.63	0.39	2.66	0.39	3.99	1.60	22.08	9.58	4.00
IXT10Rep	4.09	0.74	4.29	0.94	2.82	0.42	2.78	0.43	4.23	1.68	22.89	9.98	4.07

OT, Soltepec; PCO, Pacheco; MAL, Malpaís; RIN, Rinconada gully; IXT, Ixtepec.