APCA 5

Rachel Tao

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Loadings

element	MeanConc	source_1	source_2	source_3	source_4	source_5	r_squared	PredConc	Pct_error
aluminum	22.52	1.04	0.06	23.34	1.90	2.67	0.55	29.01	28.83
ammonium	1119.33	403.60	13.28	203.74	490.19	-7.06	0.94	1103.75	-1.39
arsenic	0.49	0.14	0.00	0.05	0.08	0.11	0.16	0.37	-24.62
barium	1.95	0.03	0.07	0.66	-0.09	2.76	0.48	3.43	76.10
bromine	3.05	0.93	0.23	0.22	0.48	0.60	0.32	2.45	-19.55
cadmium	1.68	0.13	-0.04	0.13	-0.06	-0.02	0.01	0.14	-91.57
calcium	51.67	24.35	2.41	19.02	1.41	-1.28	0.55	45.90	-11.16
chlorine	36.83	19.19	31.79	-6.46	1.70	1.68	0.67	47.90	30.08
chromium	2.13	1.47	-0.28	0.55	-0.50	-0.06	0.05	1.18	-44.68
copper	4.63	2.02	-0.15	0.92	0.32	2.23	0.75	5.34	15.50
EC	706.94	297.23	-9.84	159.44	44.77	104.27	0.51	595.86	-15.71
iron	105.50	30.45	-2.33	37.66	3.38	13.91	0.70	83.06	-21.27
lead	2.01	1.32	0.05	0.07	0.23	0.62	0.38	2.29	13.87
magnesium	7.32	-1.79	4.66	0.48	-0.05	4.84	0.92	8.14	11.14
manganese	2.09	1.28	0.00	0.61	0.15	0.13	0.76	2.17	3.44
nickel	4.91	3.75	0.09	0.38	0.27	-0.67	0.67	3.82	-22.27
nitrate	1604.06	1039.89	83.24	-38.79	349.85	89.29	0.58	1523.48	-5.02
OC	2706.61	312.69	-64.27	552.52	424.43	590.70	0.76	1816.06	-32.90
pm25	10356.26	2119.95	72.19	2105.72	2439.48	1506.88	0.85	8244.22	-20.39
potassium	39.33	4.53	3.00	2.57	7.62	42.10	0.51	59.82	52.09
selenium	0.39	0.10	0.01	0.07	0.13	0.03	0.29	0.34	-12.43
silicon	61.29	5.96	1.50	64.70	3.79	-1.80	0.92	74.15	20.98
sodium	95.14	12.21	44.09	14.82	1.78	-11.22	0.88	61.68	-35.17
sulfur	791.26	24.56	-0.20	234.42	303.99	60.11	0.87	622.88	-21.28
titanium	2.39	0.21	-0.03	1.96	0.17	0.34	0.56	2.65	10.85
vanadium	2.86	1.46	0.08	1.10	0.73	0.20	0.44	3.56	24.42
zinc	25.90	21.61	0.94	-2.80	0.73	2.59	0.73	23.07	-10.92

Source proportions

element	source_1	source_2	source_3	source_4	source_5
aluminum	3.58	0.22	80.45	6.54	9.22
ammonium	36.33	1.20	18.34	44.13	0.00
arsenic	37.94	0.51	12.16	20.51	28.87
barium	0.98	2.01	18.64	0.00	78.38
bromine	37.82	9.36	8.94	19.38	24.51
cadmium	50.84	0.00	49.16	0.00	0.00
calcium	51.60	5.10	40.31	2.99	0.00
chlorine	35.30	58.48	0.00	3.12	3.10
$\operatorname{chromium}$	72.90	0.00	27.10	0.00	0.00
copper	36.74	0.00	16.79	5.80	40.67
EC	49.07	0.00	26.32	7.39	17.21
iron	35.66	0.00	44.10	3.95	16.29
lead	57.79	2.24	2.85	10.17	26.95
magnesium	0.00	46.69	4.78	0.00	48.52
manganese	59.15	0.00	28.20	6.71	5.95
nickel	83.46	2.08	8.47	6.00	0.00
nitrate	66.56	5.33	0.00	22.39	5.72
OC	16.63	0.00	29.38	22.57	31.41
pm25	25.71	0.88	25.54	29.59	18.28
potassium	7.58	5.02	4.29	12.74	70.37
selenium	29.74	2.88	20.95	37.89	8.54
silicon	7.85	1.97	85.19	4.99	0.00
sodium	16.75	60.48	20.33	2.44	0.00
sulfur	3.94	0.00	37.62	48.79	9.65
titanium	7.86	0.00	73.02	6.27	12.85
vanadium	41.00	2.12	30.84	20.54	5.50
zinc	83.55	3.62	0.00	2.80	10.03

Bar graph of the above proportions

