## APCA 7

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## Loadings

element	MeanConc	source_1	source_2	source_3	source_4	source_5	source_6	source_7	r_squared	PredConc	Pct_error
aluminum	22.52	0.83	-0.11	16.47	3.57	3.70	1.73	-1.26	0.58	24.93	10.70
ammonium	1119.33	223.35	16.76	119.83	637.96	-23.49	9.21	111.18	0.93	1094.80	-2.19
arsenic	0.49	0.09	0.00	0.03	0.11	0.08	0.01	0.03	0.16	0.35	-28.61
barium	1.95	-0.03	0.14	0.43	-0.05	2.11	-0.07	0.74	0.47	3.26	67.36
bromine	3.05	0.65	0.27	0.19	0.65	0.51	-0.04	-0.04	0.34	2.19	-28.26
$\operatorname{cadmium}$	1.68	0.11	-0.07	0.08	-0.08	0.00	-0.10	0.09	0.02	0.03	-98.34
$\operatorname{calcium}$	51.67	15.50	2.68	12.69	3.23	-0.47	-1.72	11.14	0.58	43.05	-16.67
chlorine	36.83	12.71	40.97	-4.03	2.49	2.20	0.18	-0.81	0.65	53.71	45.84
$\operatorname{chromium}$	2.13	0.67	-0.20	0.55	-0.29	-0.04	2.42	-0.74	0.68	2.38	11.86
copper	4.63	1.02	-0.10	0.52	0.62	1.61	0.24	1.62	0.74	5.52	19.34
EC	706.94	122.50	3.54	56.42	67.18	35.08	-36.38	510.48	0.84	758.81	7.34
iron	105.50	10.24	-0.32	21.81	7.73	7.01	6.73	49.28	0.94	102.49	-2.85
lead	2.01	0.97	0.01	0.10	0.34	0.56	-0.11	0.03	0.48	1.92	-4.77
magnesium	7.32	-0.93	6.11	0.49	-0.10	3.99	0.13	-1.43	0.91	8.26	12.77
manganese	2.09	0.70	0.02	0.36	0.29	0.07	0.11	0.73	0.74	2.28	8.98
nickel	4.91	2.39	0.13	0.31	0.64	-0.53	0.71	0.29	0.82	3.93	-19.91
$_{ m nitrate}$	1604.06	623.09	104.52	-33.47	491.58	45.58	13.30	289.44	0.56	1534.05	-4.37
OC	2706.61	96.40	-55.12	308.14	569.45	400.84	-20.65	579.95	0.77	1879.02	-30.58
pm25	10356.26	1035.11	153.90	1222.08	3218.52	1010.51	-19.77	1709.04	0.85	8329.38	-19.57
potassium	39.33	5.35	3.40	3.87	10.85	36.53	0.56	-11.50	0.63	49.06	24.73
selenium	0.39	0.07	0.01	0.05	0.17	0.03	0.00	-0.02	0.30	0.31	-21.16
silicon	61.29	4.10	1.15	46.65	6.65	1.17	-1.87	6.74	0.96	64.60	5.39
$\operatorname{sodium}$	95.14	4.62	60.20	7.56	2.74	-10.32	-0.04	13.64	0.94	78.41	-17.59
sulfur	791.26	-6.59	3.81	140.93	386.17	36.81	4.28	49.62	0.85	615.02	-22.27
titanium	2.39	-0.03	0.00	1.19	0.27	0.23	-0.09	1.13	0.54	2.72	13.58
vanadium	2.86	0.75	0.13	0.62	1.02	0.06	-0.01	1.15	0.45	3.73	30.43
zinc	25.90	15.85	0.45	-1.45	1.46	2.75	-1.42	1.57	0.91	19.21	-25.84

## Source proportions

element	source_1	source_2	source_3	source_4	source_5	source_6	source_7
aluminum	3.16	0.00	62.63	13.56	14.07	6.58	0.00
ammonium	19.97	1.50	10.72	57.05	0.00	0.82	9.94
arsenic	24.39	0.88	9.02	30.47	23.88	2.56	8.81
barium	0.00	4.19	12.58	0.00	61.69	0.00	21.55
bromine	28.70	11.90	8.20	28.49	22.70	0.00	0.00
cadmium	40.40	0.00	28.37	0.00	0.24	0.00	30.99
calcium	34.26	5.92	28.06	7.15	0.00	0.00	24.62
chlorine	21.71	69.97	0.00	4.26	3.77	0.30	0.00
$\operatorname{chromium}$	18.49	0.00	15.08	0.00	0.00	66.43	0.00
copper	18.06	0.00	9.32	10.95	28.57	4.21	28.88
EC	15.41	0.44	7.10	8.45	4.41	0.00	64.19
iron	9.96	0.00	21.22	7.52	6.82	6.55	47.93
lead	47.95	0.60	5.16	17.01	27.84	0.00	1.45
magnesium	0.00	57.02	4.54	0.00	37.22	1.22	0.00
manganese	30.66	0.81	15.91	12.72	3.14	4.77	31.99
nickel	53.42	2.89	6.98	14.32	0.00	15.92	6.47
nitrate	39.75	6.67	0.00	31.36	2.91	0.85	18.47
OC	4.93	0.00	15.76	29.13	20.51	0.00	29.67
pm25	12.40	1.84	14.64	38.55	12.10	0.00	20.47
potassium	8.84	5.62	6.39	17.91	60.33	0.92	0.00
selenium	20.87	2.75	15.50	51.57	8.48	0.82	0.00
silicon	6.17	1.73	70.19	10.01	1.76	0.00	10.14
$\operatorname{sodium}$	5.21	67.82	8.52	3.09	0.00	0.00	15.37
sulfur	0.00	0.61	22.67	62.12	5.92	0.69	7.98
titanium	0.00	0.06	42.09	9.68	8.17	0.00	40.00
vanadium	19.93	3.55	16.60	27.38	1.69	0.00	30.85
zinc	71.80	2.04	0.00	6.62	12.45	0.00	7.10

## Bar graph of the above proportions

