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Biogeochemistry of Household Dust Samples Collected from Private Homes of a Portuguese Industrial City

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Figure S1. The study area within the Portuguese territory and the location of the sampling sites. The red rectangle identifies the chemical complex of Estarreja (CCE).

Table S1. Summary statistics for elemental concentrations determined in indoor (IN) and outdoor (OUT) samples; labels in bold identify the group with higher elemental concentration; *statistically significant differences between groups ($p < 0.01$); Al, Ca, Fe, K, Mg, and Na are expressed in percentage, Hg is expressed in μg kg^{-1} and the other elements are expressed in mg kg^{-1}.

Element	MDL[a]	Dust	Minimum	Median	Mean ± SD	Maximum
Al	0.01	IN	0.68	1.04	1.05 ± 0.09	1.62
	%	OUT	0.55	1.28	1.31 ± 0.37	2.15
As*	1	IN	4.1	9.6	11.1 ± 4.1	18.7
	mg kg^{-1}	**OUT**	11.9	22.5	22.2 ± 6.8	35.1
B*	0.1	**IN**	18	28	38 ± 34	170
	mg kg^{-1}	OUT	6	12	15 ± 10	40
Ba	1	IN	51	76	81 ± 24	134
	mg kg^{-1}	OUT	44	93	118 ± 68	320
Be*	0.1	IN	0.30	0.50	0.52 ± 0.23	1.20
	mg kg^{-1}	**OUT**	0.50	0.80	0.86 ±0.20	1.30
Bi*	0.02	**IN**	0.64	1.62	2.01 ± 1.22	5.63
	mg kg^{-1}	OUT	0.34	1.07	1.21 ± 0.75	3.47

Ca	0.01	IN	2.43	4.14	4.32 ± 2.16	11.80
	%	OUT	1.61	4.20	4.10 ± 1.63	8.13
Cd*	0.01	**IN**	0.55	0.93	0.99 ± 0.43	2.19
	mg kg^{-1}	OUT	0.23	0.46	0.51 ± 0.23	1.11
Co	0.1	IN	2.8	5.0	5.5 ± 1.9	12.0
	mg kg^{-1}	OUT	3.1	5.8	6.0 ± 1.4	8.9
Cr*	0.5	**IN**	24.5	72.3	70.6 ± 20.8	102.0
	mg kg^{-1}	OUT	18.7	36.9	43.1 ± 27.4	123.0
Cs*	0.02	IN	0.80	1.78	1.76 ± 0.60	3.04
	mg kg^{-1}	**OUT**	1.97	3.34	3.31 ± 0.86	5.48
Cu*	0.01	**IN**	148	210	261 ± 118	585.0
	mg kg^{-1}	OUT	37	95	101 ± 45	178.0
Fe*	0.01	IN	0.63	1.23	1.19 ± 0.37	1.96
	%	**OUT**	1.14	1.86	1.99 ± 0.58	3.79
Ga*	0.02	IN	0.93	2.31	2.16 ± 0.83	4.00
	mg kg^{-1}	**OUT**	1.67	3.70	3.66 ± 0.91	5.43
Hg*	10	**IN**	80	370	404 ± 284	1020
	μg kg^{-1}	OUT	5	20	37 ± 36	110
K*	0.01	**IN**	0.20	0.39	0.38 ± 0.08	0.52
	%	OUT	0.11	0.22	0.25 ± 0.09	0.52
Li*	0.1	IN	8.3	21.4	21.1 ± 6.5	33.1
	mg kg^{-1}	**OUT**	21	34.45	34. 8 ± 9.6	63.9
Mg	0.01	IN	0.19	0.36	0.40 ± 0.07	0.92
	%	OUT	0.18	0.34	0.33 ± 0.09	0.48
Mn*	1	IN	98	173	178 ± 59	304
	mg kg^{-1}	**OUT**	186	246	265 ± 69	472
Mo	0.01	IN	1.17	2.69	3.17 ± 1.66	8.10
	mg kg^{-1}	OUT	1.24	2.62	2.74 ± 1.09	5.56
Na*	0.001	**IN**	0.252	0.563	0.585 ± 0.251	1.260
	%	OUT	0.013	0.020	0.049 ± 0.069	0.254
Ni*	0.1	**IN**	37.4	63.1	67.0 ± 21.2	117.0
	mg kg^{-1}	OUT	13.2	30.5	34.7 ± 17.9	92.5
Pb	0.01	IN	53	118	174 ± 250	1180
	mg kg^{-1}	OUT	24	74	121 ± 155	714
Rb*	0.1	IN	8.3	17.0	17.1 ± 4.7	27.0
	mg kg^{-1}	**OUT**	14.8	26.9	27.1 ± 7.0	41.4
Sb*	0.02	**IN**	1.98	4.93	6.94 ± 5.90	25.20
	mg kg^{-1}	OUT	1.22	2.97	3.41 ± 1.81	8.87
Sc*	0.1	IN	0.05	0.40	0.35 ± 0.23	0.90
	mg kg^{-1}	**OUT**	0.60	1.25	1.26 ± 0.34	2.00
Se	0.1	IN	0.4	0.6	0.7 ± 0.2	1.1
	mg kg^{-1}	OUT	0.3	0.7	0.7 ± 0.3	1.3
Sn*	0.05	**IN**	11	18	21 ± 8	37
	mg kg^{-1}	OUT	5	9	10 ± 4	18
Sr	0.05	IN	44	56	61 ± 17	95
	mg kg^{-1}	OUT	22	45	55 ± 26	103
Th*	0.1	IN	0.05	0.30	0.43 ± 0.39	1.30
	mg kg^{-1}	**OUT**	0.70	2.65	3.37 ± 2.76	11.10
Tl*	0.02	IN	0.08	0.11	0.13 ± 0.04	0.22
	mg kg^{-1}	**OUT**	0.12	0.22	0.22 ± 0.05	0.33
U*	0.1	IN	0.60	1.80	1.68 ± 0.55	2.50
	mg kg^{-1}	**OUT**	1.80	4.50	4.75 ± 2.20	8.70
V*	1	IN	10	15	15 ± 4	23
	mg kg^{-1}	**OUT**	11	25	26 ± 9	47
W*	0.1	**IN**	0.80	2.70	5.30 ± 8.29	36.00
	mg kg^{-1}	OUT	0.40	0.90	1.04 ± 0.65	2.80
Y*	0.01	IN	1.6	3.2	3.6 ± 1.3	7.2

	mg kg^{-1}	**OUT**	4.5	6.4	6.8 ± 1.8	11.2
Zn	0.1	IN	582	1110	1349 ± 1020	5210
	mg kg^{-1}	OUT	237	586	1265 ± 1789	7030
Zr	0.1	IN	0.20	0.90	1.25 ± 1.13	4.7
	mg kg^{-1}	OUT	0.10	0.55	0.87 ± 0.88	3.80

[a]MDL: detection limit; SD: standard deviation.

Table S2. Multiple discriminant analysis model for the household dust chemistry.

	Model Formula	**% of Variance**	**Canonical Correlation**
F1	8.625 (Na) – 8.374 (K) + 4.007 (Cd) + 2.602 (Sn)	100	0.95

Table S3. Original CISED data for sample #1IN (mg/kg).

Extract	Al	As	Ba	Ca	Cd	Co	Cr	Cu	Fe	K
DI	131.522	0.138	2.162	1408.800	0.018	0.241	1.803	8.822	35.555	1207.106
DI	18.005	0.066	0.224	276.336	0.003	0.056	0.470	2.516	6.485	323.197
0.01M	4.596	0.041	0.159	837.908	0.002	0.021	0.152	0.899	1.190	212.731
0.01M	1.147	0.035	0.196	1148.726	0.002	0.014	0.075	0.631	0.524	135.040
0.05M	1.397	0.047	2.439	5744.582	0.036	0.052	0.052	0.513	0.415	137.657
0.05M	87.919	0.013	6.296	6288.600	0.085	0.075	0.057	0.503	12.572	119.504
0.1M	1903.147	0.195	15.340	6755.181	0.103	0.443	0.565	91.706	56.876	145.779
0.1M	985.797	0.385	11.046	1941.540	0.043	0.208	0.730	73.680	215.586	58.136
0.5M	891.049	0.430	11.679	845.093	0.027	0.194	1.322	39.869	403.941	31.696
0.5M	718.199	0.495	13.523	642.204	0.029	0.183	1.780	26.894	334.098	26.355
1.0M	252.256	0.339	10.335	289.065	0.016	0.092	1.121	8.460	230.161	15.213
1.0M	121.978	0.266	7.078	143.502	0.010	0.055	0.828	3.816	172.698	12.049
5.0M	162.767	0.548	5.972	139.151	0.017	0.130	3.619	4.149	553.819	17.856
5.0M	112.781	0.341	3.637	83.840	0.015	0.095	2.348	1.873	492.313	10.282
Extract	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb
DI	0.516	408.672	7.443	0.076	4816.026	3.750	158.787	0.797	1530.419	0.269
DI	0.130	68.772	1.086	0.035	1127.973	0.952	48.385	0.107	320.558	0.072
0.01M	0.134	130.181	2.363	0.013	520.977	0.332	41.457	0.024	30.000	0.030
0.01M	0.084	93.674	3.057	0.006	221.159	0.167	30.331	0.010	30.000	0.025
0.05M	0.107	134.321	9.792	0.002	159.335	0.445	1.336	0.008	30.000	0.032
0.05M	0.093	145.985	7.733	0.001	98.687	1.038	3.814	0.325	30.000	0.029
0.1M	0.196	289.520	18.441	0.032	145.216	25.081	118.772	12.594	30.000	0.081
0.1M	0.224	219.938	8.958	0.113	43.586	12.943	106.069	17.355	30.000	0.070
0.5M	0.216	173.301	8.007	0.319	17.625	6.304	125.946	14.101	30.000	0.180
0.5M	0.336	345.192	9.308	0.231	18.817	4.232	48.847	7.067	30.000	0.133
1.0M	0.226	197.012	4.405	0.158	7.856	1.874	20.794	2.857	30.000	0.186
1.0M	0.171	122.762	2.570	0.107	4.531	1.129	11.536	1.339	30.000	0.173
5.0M	0.310	160.245	4.403	0.273	5.128	2.755	27.043	1.491	30.000	0.700
5.0M	0.307	145.613	3.257	0.214	3.197	1.697	14.112	1.246	30.000	0.383
Extract	Se	Si	Sr	V	Zn	Ti	Sn	Y	Zr	Ga
DI	0.035	55.178	3.728	0.365	43.277	0.045	1.900	0.049	0.264	0.013
DI	0.009	22.270	0.556	0.111	9.671	0.035	0.441	0.005	0.054	0.003
0.01M	0.004	24.941	1.449	0.040	5.673	0.051	0.108	0.001	0.013	0.001
0.01M	0.003	31.615	1.743	0.026	4.517	0.139	0.050	0.001	0.004	0.000
0.05M	0.002	325.433	6.800	0.020	51.941	1.754	0.024	0.000	0.004	0.001
0.05M	0.002	676.996	8.145	0.018	110.363	0.017	0.017	0.029	0.008	0.000
0.1M	0.010	1246.473	10.768	1.022	248.254	0.025	0.254	0.459	0.070	0.110
0.1M	0.017	387.661	3.246	0.809	101.050	0.039	0.368	0.359	0.140	0.154
0.5M	0.020	208.078	1.516	0.756	53.566	0.026	1.173	0.465	0.350	0.132
0.5M	0.018	217.113	1.126	0.701	34.378	0.024	0.821	0.235	0.132	0.099
1.0M	0.014	126.530	0.509	0.372	12.578	0.017	1.437	0.073	0.088	0.041
1.0M	0.010	107.890	0.292	0.242	6.450	0.014	1.404	0.033	0.064	0.023
5.0M	0.034	157.111	0.268	0.431	8.912	0.030	7.012	0.041	0.522	0.042
5.0M	0.021	111.671	0.197	0.279	7.098	0.021	2.896	0.031	0.261	0.027

N/B: values not detected are represented as 0.001 mg/kg and 30.000 mg/kg for S.

Table S4. Original CISED data for sample #2IN (mg/kg).

Extract	Al	As	Ba	Ca	Cd	Co	Cr	Cu	Fe	K
DI	11.772	0.195	0.348	1354.750	0.009	0.296	2.721	5.185	29.740	2204.091
DI	4.394	0.098	0.195	376.398	0.004	0.082	0.878	2.479	10.897	601.076
0.01M	1.985	0.073	0.229	1018.279	0.002	0.032	0.301	1.275	1.720	332.088
0.01M	0.711	0.053	0.245	1255.815	0.002	0.020	0.137	0.511	0.578	150.244
0.05M	0.300	0.093	1.252	5966.786	0.018	0.077	0.076	0.394	0.183	141.826
0.05M	0.300	0.098	1.843	6847.014	0.046	0.106	0.066	0.344	0.244	100.401
0.1M	213.921	0.130	17.415	12359.958	0.262	0.482	0.604	12.094	8.693	177.113
0.1M	844.932	0.311	23.356	4371.150	0.146	0.403	1.411	122.794	423.032	99.551
0.5M	828.141	0.779	26.012	1864.556	0.093	0.367	2.519	70.678	1209.101	49.535
0.5M	615.507	0.886	27.002	744.416	0.084	0.274	3.149	26.274	930.949	40.277
1.0M	189.443	0.504	17.979	150.665	0.029	0.100	1.541	7.457	588.288	20.865
1.0M	108.527	0.365	14.092	51.567	0.017	0.061	1.106	3.912	383.762	15.774
5.0M	280.587	1.183	14.474	65.136	0.042	0.258	5.948	8.630	1839.758	34.723
5.0M	136.592	0.446	6.708	23.533	0.019	0.107	2.563	2.609	606.025	18.271
Extract	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb
DI	0.876	545.196	5.045	0.144	3064.518	3.294	276.847	0.185	1599.468	0.191
DI	0.327	108.376	1.278	0.051	690.974	0.951	69.888	0.096	375.319	0.059
0.01M	0.354	198.503	2.725	0.035	256.988	0.298	65.835	0.018	30.000	0.027
0.01M	0.198	135.026	3.169	0.018	79.056	0.146	38.893	0.005	30.000	0.017
0.05M	0.268	168.188	11.445	0.007	49.615	0.266	28.432	0.003	30.000	0.032
0.05M	0.208	102.363	9.838	0.006	31.150	0.434	25.934	0.003	30.000	0.042
0.1M	0.426	254.800	24.915	0.061	61.942	6.812	41.597	1.070	30.000	0.097
0.1M	0.318	239.632	14.989	0.084	33.346	13.291	200.249	21.607	30.000	0.072
0.5M	0.379	270.134	15.033	0.390	14.247	7.010	270.978	21.237	30.000	0.174
0.5M	0.502	255.605	11.468	0.337	11.133	4.133	103.424	9.735	30.000	0.118
1.0M	0.235	81.436	4.048	0.226	3.660	1.362	36.415	3.046	30.000	0.125
1.0M	0.173	46.265	2.373	0.146	2.114	0.852	17.885	1.378	30.000	0.112
5.0M	0.475	126.633	8.794	0.600	4.512	3.369	57.745	2.634	30.000	0.791
5.0M	0.355	75.482	3.357	0.272	2.481	1.471	23.989	1.085	30.000	0.379
Extract	Se	Si	Sr	V	Zn	Ti	Sn	Y	Zr	Ga
DI	0.032	29.130	4.351	0.272	36.589	0.361	0.545	0.011	0.215	0.005
DI	0.011	24.849	1.086	0.109	15.209	0.096	0.182	0.004	0.072	0.001
0.01M	0.005	23.673	2.835	0.056	7.321	0.038	0.065	0.001	0.021	0.001
0.01M	0.002	18.633	3.025	0.034	5.131	0.017	0.035	0.001	0.008	0.001
0.05M	0.003	65.515	10.210	0.025	20.866	0.003	0.022	0.001	0.002	0.001
0.05M	0.003	106.337	9.913	0.028	81.262	0.002	0.021	0.001	0.001	0.001
0.1M	0.016	340.486	16.400	1.840	499.455	1.084	0.088	0.100	0.023	0.002
0.1M	0.021	238.647	6.733	1.519	269.433	15.358	0.852	0.949	0.095	0.117
0.5M	0.027	195.577	3.858	1.538	103.801	30.351	1.383	0.983	0.481	0.146
0.5M	0.024	189.125	2.012	1.012	48.984	17.007	0.927	0.407	0.175	0.109
1.0M	0.016	98.032	0.750	0.473	12.748	5.762	1.530	0.088	0.118	0.040
1.0M	0.011	72.020	0.455	0.282	6.274	3.039	1.363	0.036	0.068	0.024
5.0M	0.047	155.381	0.493	0.747	16.084	6.797	8.931	0.068	0.652	0.074
5.0M	0.021	92.056	0.213	0.358	7.085	4.045	3.522	0.031	0.306	0.032

N/B: values not detected are represented as 0.001 mg/kg and 30.000 mg/kg for S.

Table S5. Original CISED data for sample #8IN (mg/kg).

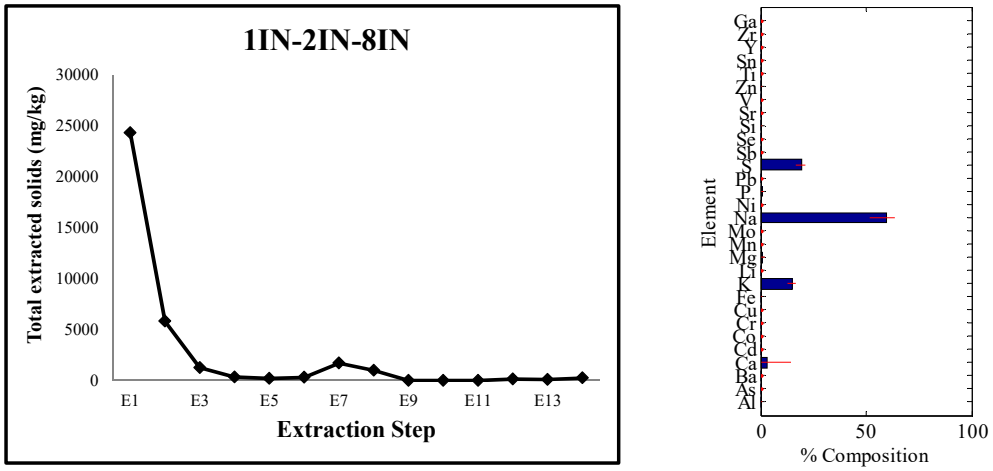
Extract	Al	As	Ba	Ca	Cd	Co	Cr	Cu	Fe	K
DI	14.550	0.196	0.664	2156.934	0.017	0.522	2.810	6.214	35.346	2026.725
DI	3.268	0.067	0.180	562.685	0.003	0.151	0.904	2.273	9.869	556.581
0.01M	1.299	0.056	0.153	1159.521	0.001	0.053	0.326	0.706	3.425	290.851
0.01M	1.609	0.046	0.181	1413.693	0.002	0.028	0.208	0.432	1.165	141.914
0.05M	0.506	0.091	0.590	6102.422	0.005	0.046	0.119	0.273	0.368	135.455
0.05M	0.767	0.107	0.836	7395.065	0.016	0.085	0.131	0.272	0.539	107.136
0.1M	22.880	0.189	4.157	13521.900	0.107	0.254	0.440	1.252	2.961	165.519
0.1M	675.472	0.172	14.151	12442.318	0.223	0.426	1.025	24.762	38.707	161.057
0.5M	1718.051	0.484	23.020	5614.965	0.117	0.653	3.814	104.913	1729.439	106.519
0.5M	769.962	0.398	21.578	1413.638	0.050	0.391	3.328	50.068	756.760	48.149
1.0M	235.736	0.271	21.115	309.099	0.018	0.148	1.970	16.270	479.264	22.672
1.0M	102.508	0.175	16.972	89.188	0.009	0.072	1.250	6.089	283.179	13.795
5.0M	144.271	0.362	13.321	59.423	0.015	0.177	4.979	6.686	909.307	19.469
5.0M	153.996	0.286	10.420	74.203	0.015	0.188	4.683	4.063	901.181	17.515
Extract	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb
DI	0.304	396.330	4.445	0.093	8763.603	2.746	140.275	0.574	2732.739	0.216
DI	0.111	82.454	0.752	0.037	2024.495	0.771	33.622	0.149	617.631	0.055
0.01M	0.130	131.834	1.013	0.023	739.652	0.236	60.290	0.036	30.000	0.021
0.01M	0.134	105.382	1.948	0.013	236.586	0.128	64.948	0.031	30.000	0.012
0.05M	0.227	162.255	8.818	0.004	125.544	0.146	108.448	0.004	30.000	0.019
0.05M	0.266	110.043	10.952	0.004	69.613	0.272	101.205	0.006	30.000	0.034
0.1M	0.428	177.589	19.279	0.037	92.376	1.181	113.312	0.084	30.000	0.076
0.1M	0.413	229.955	19.935	0.026	56.824	9.720	164.316	5.435	30.000	0.046
0.5M	0.756	319.194	23.200	0.294	37.637	26.151	325.774	36.565	30.000	0.118
0.5M	0.428	250.570	11.691	0.213	20.387	9.832	95.918	13.394	30.000	0.065
1.0M	0.142	92.353	4.161	0.147	7.316	3.029	41.892	6.131	30.000	0.076
1.0M	0.058	40.956	1.926	0.079	3.079	1.382	22.332	3.147	30.000	0.067
5.0M	0.161	44.456	4.233	0.179	4.551	3.084	54.770	5.559	30.000	0.409
5.0M	0.241	63.477	4.468	0.156	5.038	1.953	31.369	4.941	30.000	0.322
Extract	Se	Si	Sr	V	Zn	Ti	Sn	Y	Zr	Ga
DI	0.054	67.228	4.846	0.177	26.258	0.507	0.168	0.012	0.160	0.004
DI	0.009	43.650	1.159	0.068	6.192	0.156	0.055	0.004	0.042	0.001
0.01M	0.003	43.590	2.241	0.024	1.881	0.048	0.021	0.001	0.011	0.001
0.01M	0.003	38.530	2.497	0.023	1.789	0.050	0.014	0.001	0.007	0.001
0.05M	0.002	76.446	9.006	0.019	1.700	0.024	0.010	0.001	0.002	0.001
0.05M	0.003	123.997	9.899	0.018	12.722	0.011	0.008	0.001	0.002	0.001
0.1M	0.014	285.173	18.180	1.890	128.535	0.703	0.009	0.007	0.008	0.001
0.1M	0.015	403.659	18.022	1.594	341.299	4.073	0.066	0.413	0.017	0.018
0.5M	0.021	562.436	13.116	1.568	152.434	61.097	0.624	1.252	0.347	0.355
0.5M	0.017	258.323	5.534	0.598	58.862	22.794	0.329	0.384	0.054	0.156
1.0M	0.010	128.716	1.663	0.278	17.904	8.457	0.752	0.099	0.047	0.054
1.0M	0.008	89.530	0.601	0.154	7.094	3.607	0.737	0.037	0.019	0.026
5.0M	0.019	126.340	0.380	0.302	9.521	4.256	10.890	0.037	0.183	0.041
5.0M	0.012	90.141	0.374	0.259	12.531	4.664	5.094	0.037	0.085	0.039

N/B: values not detected are represented as 0.001 mg/kg and 30.000 mg/kg for S.

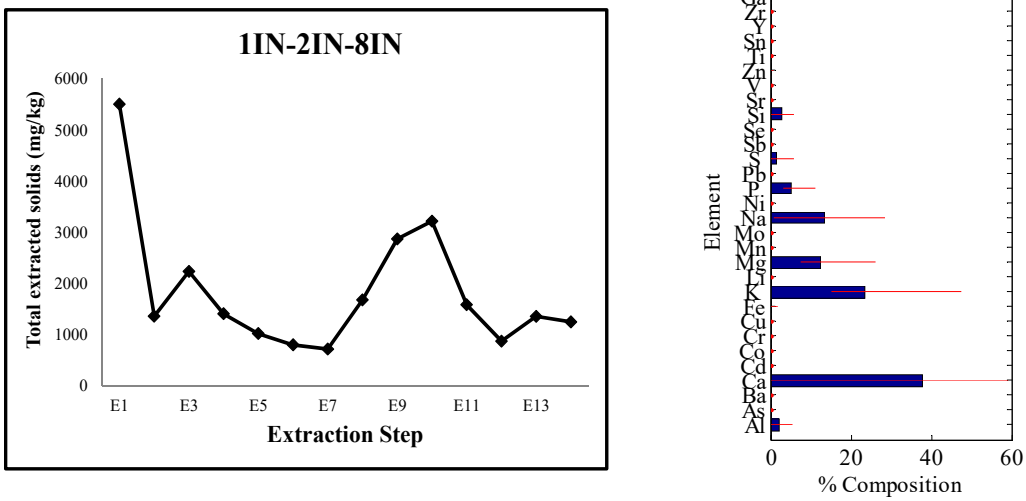
Table S6. Original CISED data for sample #12IN (mg/kg).

Extract	Al	As	Ba	Ca	Cd	Co	Cr	Cu	Fe	K
DI	18.535	0.403	0.762	1587.351	0.081	0.216	0.711	22.343	12.811	3308.029
DI	4.522	0.131	0.157	358.091	0.014	0.049	0.187	5.182	2.773	783.125
0.01M	9.615	0.109	0.389	1123.877	0.032	0.043	0.097	2.548	3.929	361.821
0.01M	0.948	0.088	0.125	1272.488	0.029	0.039	0.042	1.031	0.471	138.561
0.05M	0.030	0.127	0.680	6133.589	0.176	0.079	0.035	0.940	0.100	96.704
0.05M	0.030	0.117	0.864	6999.802	0.150	0.058	0.032	0.697	0.100	56.778
0.1M	9.225	0.208	3.122	14023.943	0.312	0.123	0.132	2.829	1.623	80.636
0.1M	9.578	0.145	3.098	14842.888	0.243	0.086	0.102	2.727	1.823	33.637
0.5M	740.908	1.038	19.319	48703.698	0.509	0.395	1.457	167.615	218.142	68.148
0.5M	466.704	0.842	13.345	10985.076	0.184	0.234	0.958	111.019	354.042	29.832
1.0M	269.450	0.778	10.283	2215.367	0.092	0.133	0.844	36.837	332.606	17.770
1.0M	111.819	0.478	7.063	444.142	0.043	0.066	0.612	11.160	203.000	11.547
5.0M	169.795	1.063	5.641	179.809	0.048	0.148	2.309	10.134	634.376	19.501
5.0M	106.440	0.564	3.321	71.616	0.024	0.093	1.257	3.613	463.964	12.390
Extract	Li	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb
DI	0.318	289.018	6.985	0.119	3771.350	3.642	134.838	0.893	2826.652	0.128
DI	0.111	59.368	1.594	0.044	700.383	0.695	45.295	0.156	574.182	0.027
0.01M	0.071	87.763	3.464	0.023	207.970	0.586	65.147	0.380	141.218	0.012
0.01M	0.065	53.424	3.088	0.016	64.311	0.236	38.510	0.026	30.000	0.007
0.05M	0.042	63.319	5.771	0.008	32.867	0.490	50.745	0.004	30.000	0.010
0.05M	0.040	43.751	3.513	0.006	19.471	0.398	40.753	0.007	30.000	0.011
0.1M	0.056	81.771	6.477	0.046	32.239	0.979	97.931	0.328	30.000	0.033
0.1M	0.047	59.627	4.042	0.051	11.175	0.771	82.831	0.418	30.000	0.028
0.5M	0.105	219.450	16.226	0.161	26.938	21.712	447.717	163.629	30.000	0.111
0.5M	0.106	122.735	8.078	0.137	9.177	9.201	165.084	54.787	30.000	0.114
1.0M	0.064	57.806	3.899	0.091	3.998	2.927	76.044	15.208	30.000	0.121
1.0M	0.077	23.058	1.685	0.052	2.143	1.231	33.795	4.554	30.000	0.092
5.0M	0.152	28.992	3.499	0.109	3.188	1.843	73.734	4.840	30.000	0.402
5.0M	0.154	21.840	2.409	0.063	2.061	0.878	29.772	2.220	30.000	0.202
Extract	Se	Si	Sr	V	Zn	Ti	Sn	Y	Zr	Ga
DI	0.034	15.669	3.234	0.403	390.014	0.372	0.093	0.014	0.061	0.003
DI	0.009	10.050	0.671	0.133	135.968	0.084	0.021	0.003	0.015	0.001
0.01M	0.004	9.414	1.561	0.074	199.173	0.108	0.012	0.005	0.011	0.001
0.01M	0.002	7.056	1.483	0.049	168.470	0.013	0.012	0.001	0.002	0.001
0.05M	0.002	10.931	3.817	0.033	510.928	0.005	0.012	0.001	0.001	0.001
0.05M	0.002	21.036	3.151	0.034	403.250	0.004	0.012	0.001	0.001	0.001
0.1M	0.010	62.082	5.382	1.071	715.966	0.294	0.012	0.009	0.006	0.001
0.1M	0.012	36.667	4.537	0.606	483.878	0.295	0.012	0.010	0.004	0.000
0.5M	0.022	150.369	14.295	1.259	1010.060	11.604	0.059	1.967	0.019	0.045
0.5M	0.018	95.381	3.503	0.611	366.458	9.676	0.126	0.631	0.037	0.060
1.0M	0.015	82.374	0.942	0.351	122.084	5.905	0.582	0.194	0.058	0.043
1.0M	0.010	66.042	0.299	0.210	36.217	2.810	0.498	0.057	0.033	0.019
5.0M	0.028	94.547	0.227	0.455	47.210	3.777	4.583	0.061	0.257	0.041
5.0M	0.016	68.729	0.135	0.267	21.710	2.533	1.837	0.030	0.095	0.024

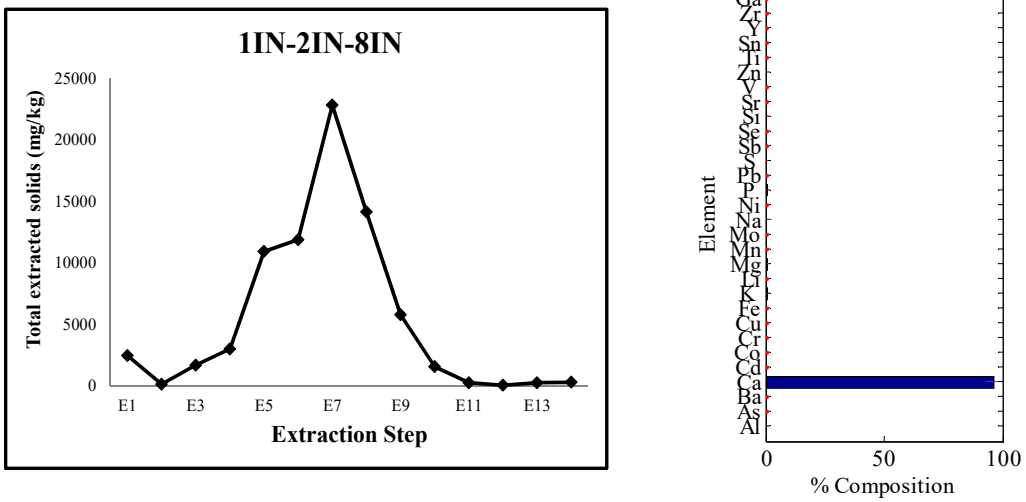
N/B: values not detected are represented as 0.001 mg/kg and 30.000 mg/kg for S.



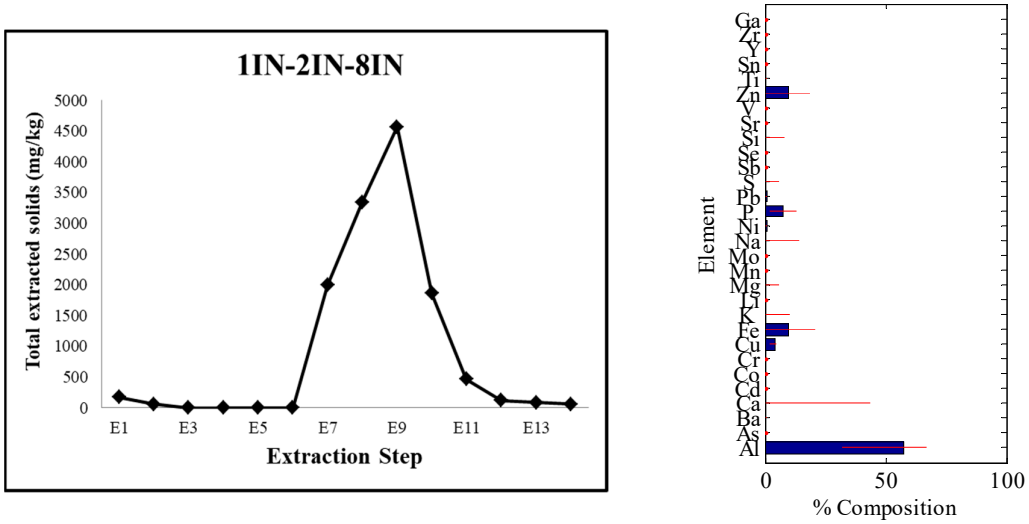
(1) Water soluble salt phase



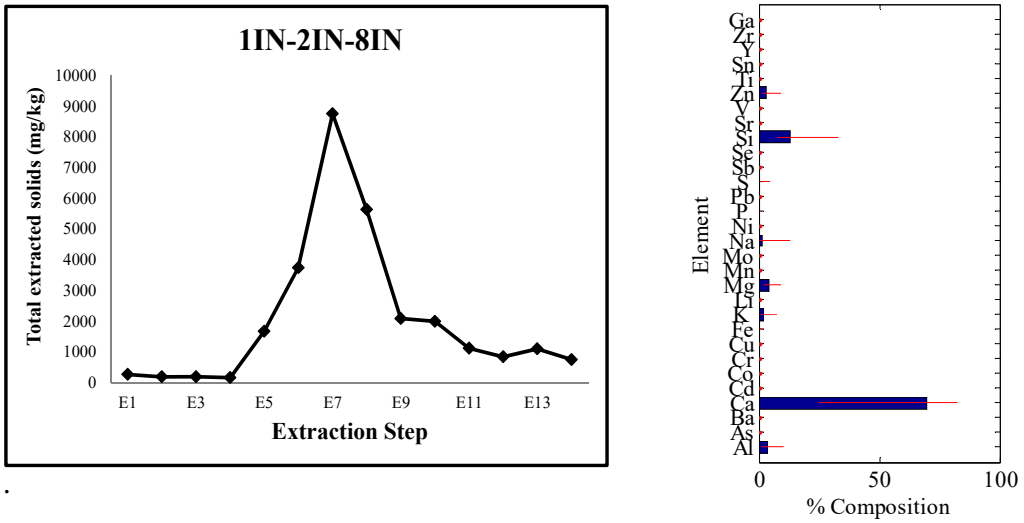
(2) Exchangeable phase



(3) Carbonate phase



(4) Al-dominated phase



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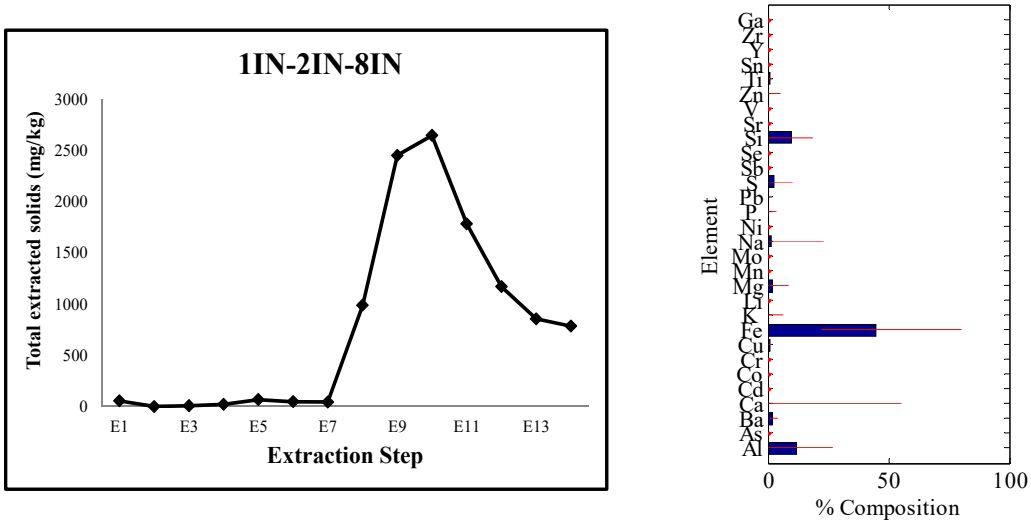
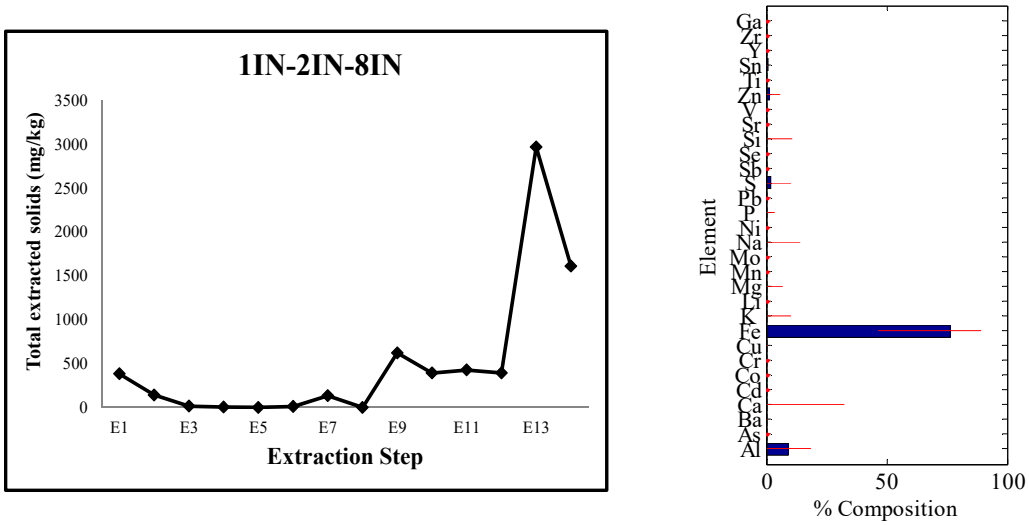
(5) Clay related phase

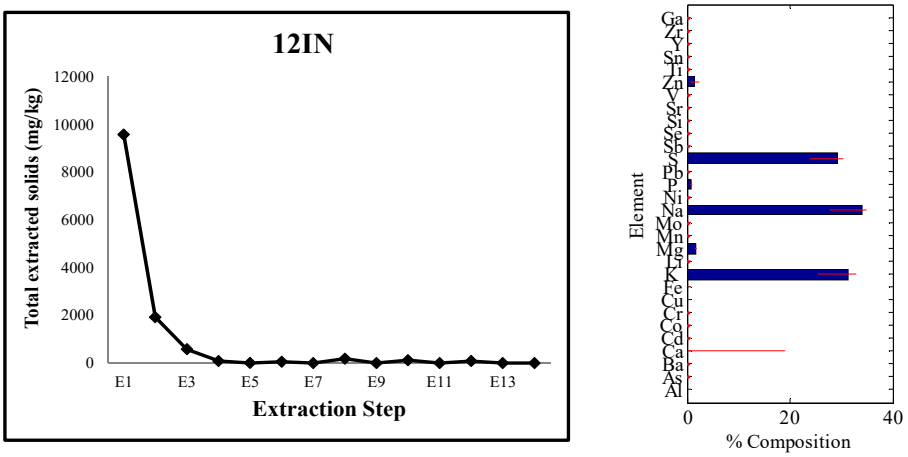


(6) Fe-oxyhydroxides phase

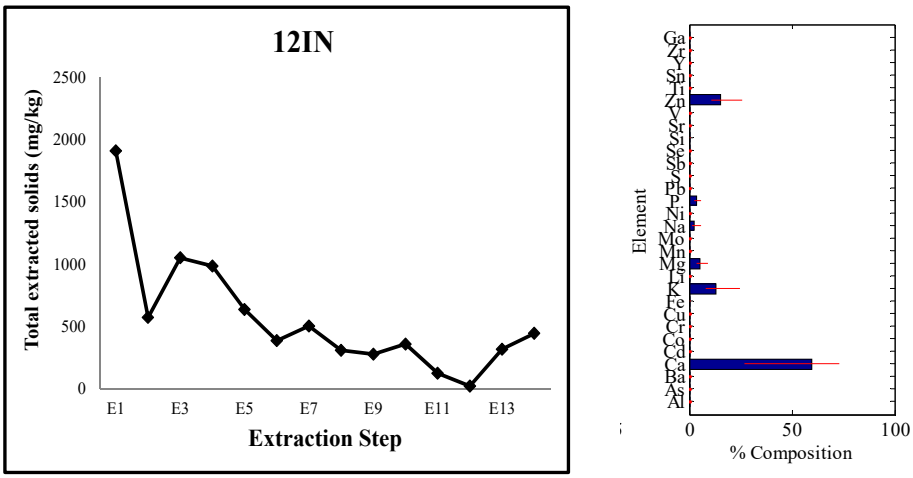


(7) Fe-oxide phase

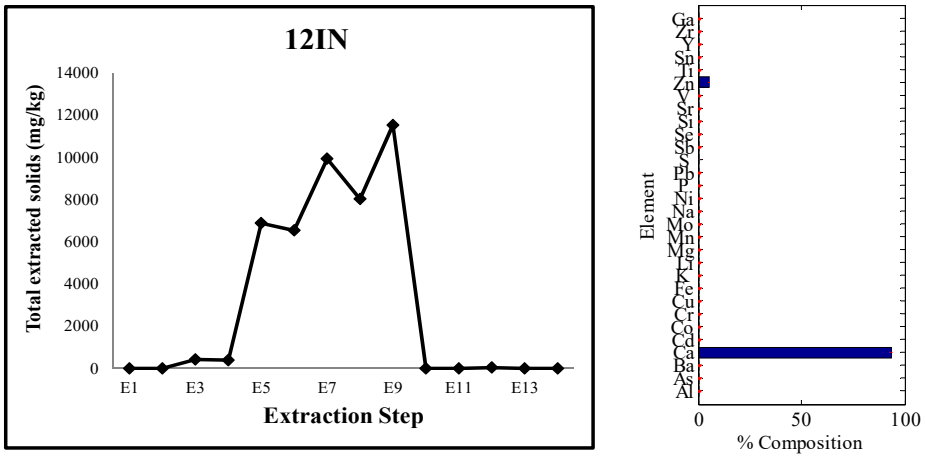
Figure S2. The relative solubility of each component in the extracts and the correspondent extraction profile outputs obtained from the SMMR modelling for the group 1IN-2IN-8IN.



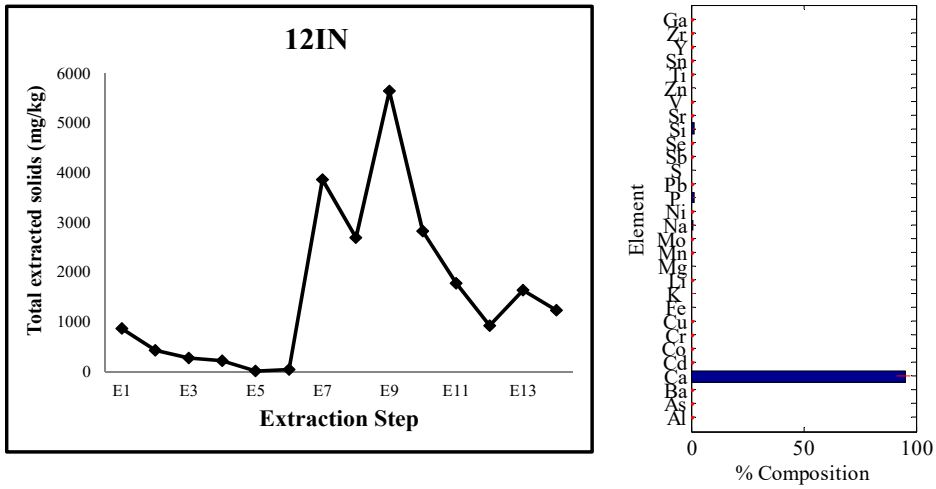
(1) Water soluble salt phase



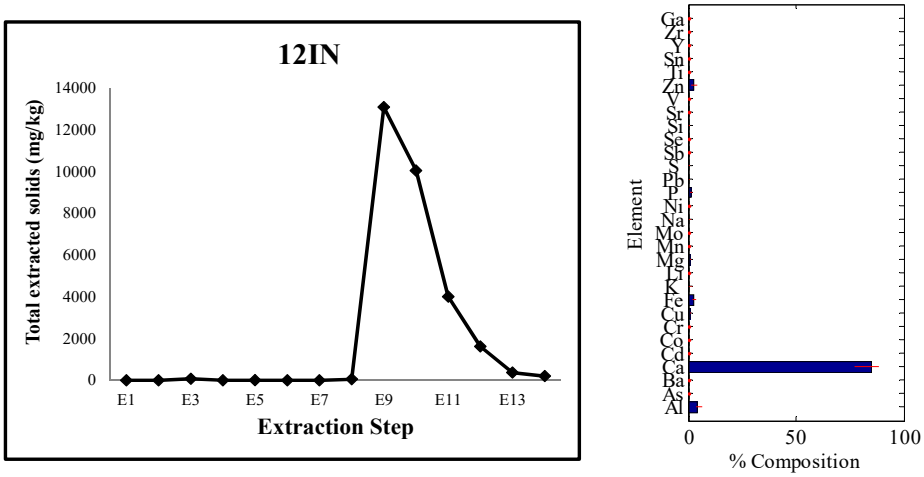
(2) Exchangeable phase



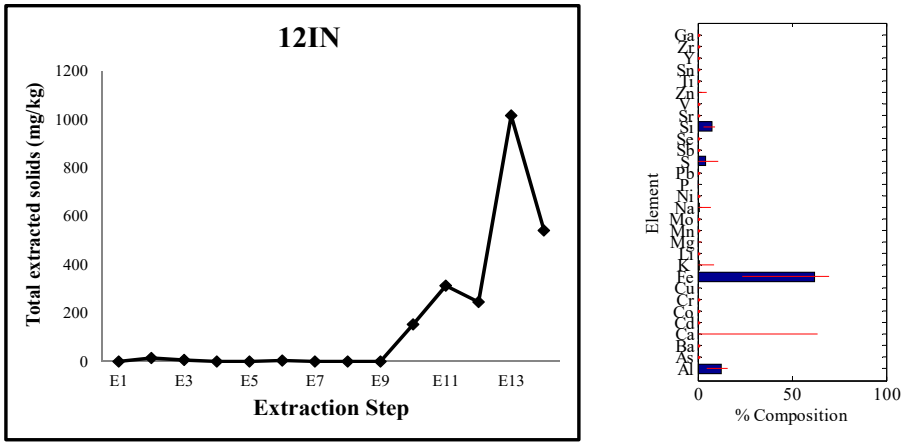
(3) Carbonate I phase



(4) Carbonate II phase



(5) Ca-dominated phase



(6) Fe-oxides

Figure S3. The relative solubility of each component in the extracts obtained from the SMMR modelling for sample 12IN.

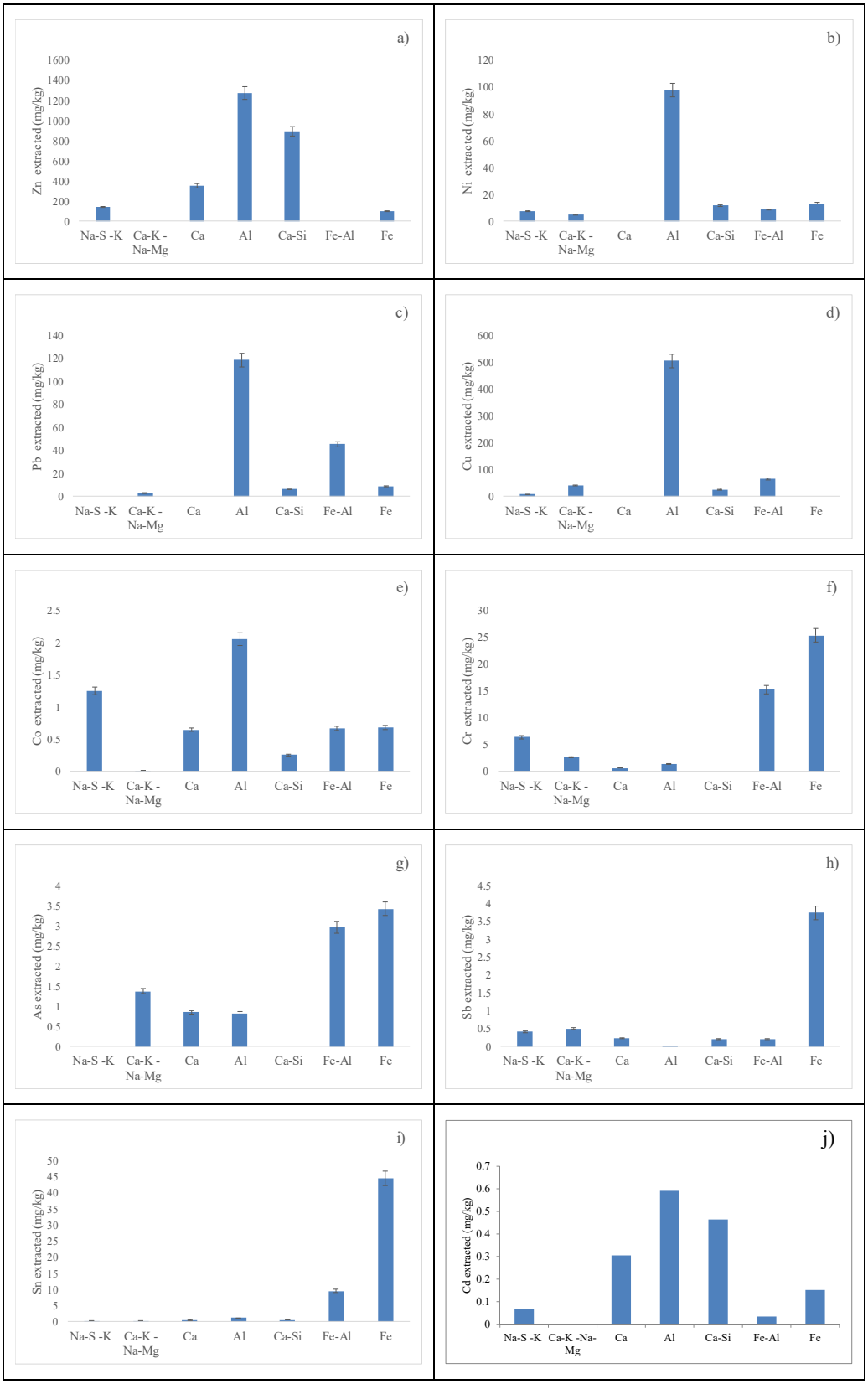


Figure S4. Distribution plots showing the amount of selected elements (mg kg^{-1}, y-axis) associated with each component extracted by each acid matrix (x-axis) for dust samples IN1-IN2-IN8. The error bars represent the upper and lower 95th percent confidence limits.

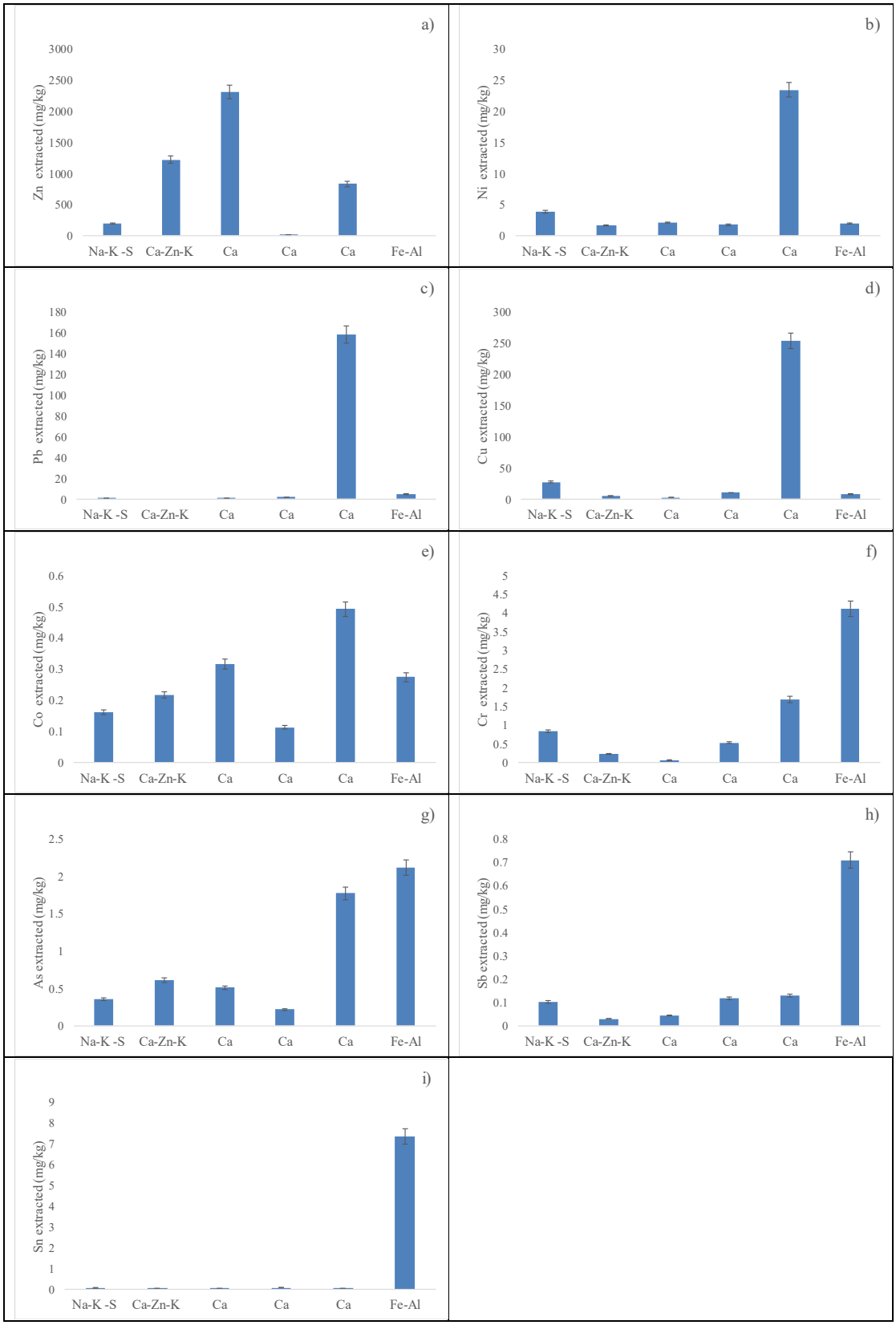


Figure S5. Distribution plots showing the amount of selected elements (mg kg^{-1}, y-axis) associated with each component extracted by each acid matrix (x-axis) for site #12. The error bars represent the upper and lower 95th percent confidence limits.

Table S7. Summary statistics for bioaccessible concentrations (stomach stage) and bioaccessible fraction (BAF %) measured on <150 μm particle size fractions for indoor dust samples (n = 9).

	UBM extracted (mg kg^{-1})			BAF × 100%		
PTE	**Min.**	**Mean ± SD**	**Max.**	**Min.**	**Mean ± SD**	**Max.**
Cr	4.7	17.5 ± 8.8	31.3	16	22± 7	35
Cu	44.4	93.3 ± 48.4	197.9	13	30 ± 7	37
Cd	0.61	1.00 ± 0.38	1.78	67	81 ± 11	100
Zn	658	1400 ± 1168	4446	66	84 ± 6	91
Pb	52.2	117.2 ± 73.4	245.3	21	60 ± 18	82
Sb	0.36	0.65 ± 0.28	1.16	7	13 ± 3	18
Co	1.21	2.13 ± 0.51	2.65	30	38 ± 5	46
Ni	21.1	32.0 ± 10.2	54.9	33	40 ± 6	48

Table S8. Average daily dose of of Co, Cu, Pb, Sb, Cd, Cr, Ni, and Zn via the ingestion of indoor dust, for the two age groups. RfD is the oral reference dose used in this study.

PTE	$ADD_{children}$ (mg kg^{-1} day^{-1})	ADD_{adults} (mg kg^{-1} day^{-1})	RfD (mg kg^{-1} day^{-1})
Co	3.6E-06	1.6E-06	0.0003
Cu	0.00017	7.4E-05	0.01
Pb	0.00011	4.9E-05	0.002
Sb	4.5E-06	2.0E-06	0.0004
Cd	6.4E-07	2.8E-07	0.001
Cr	4.6E-05	2.0E-05	0.003
Ni	4.4E-05	1.9E-05	0.02
Zn	0.00088	0.00038	0.3