ICP-MS/MS-based Ionomics: A Validated Methodology to Investigate the Biological Variability of the Human Ionome

S-1 Supporting Information

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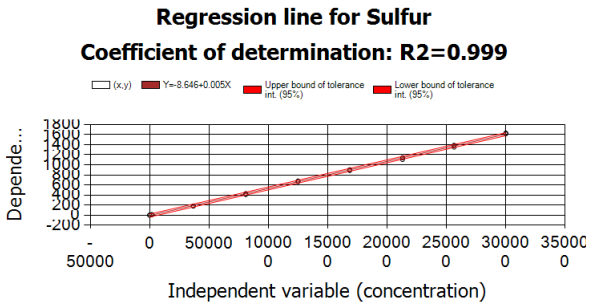
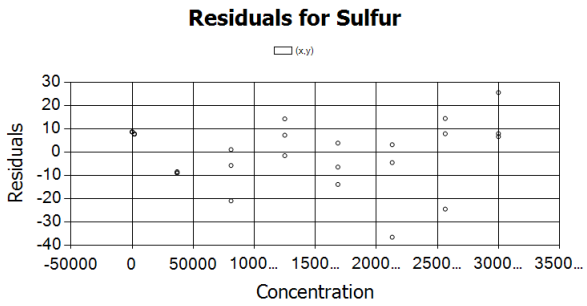
Table S-1) Instrumental operating parameters of the ICP-MS/MS.

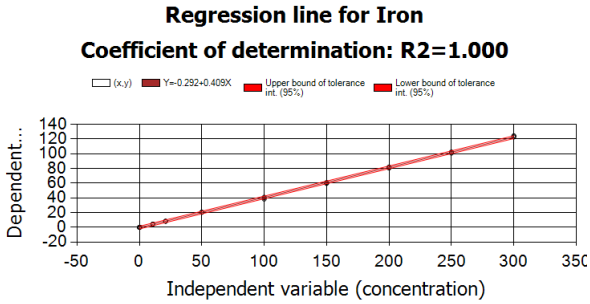
Plasma mode	**Low matrix**
RF power [W]	1550
Plasma gas (L min^{-1})	15
Auxiliary gas (L min^{-1})	0.9
Carrier gas (L min^{-1})	1.09
Sample and skimmer cones	Nickel
Spray chamber	Scott double pass
Nebulizer	MicroMist

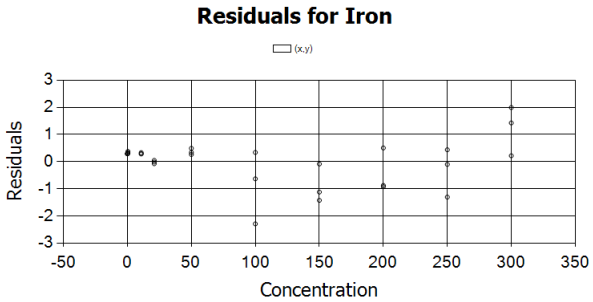
	No gas	**He**	**O2**
Extract 2 [V]	-200	-200	-200
Omega bias [V]	-90	-90	-90
Omega lens [V]	8.2	8.2	8.2
Q1 Entrance [V]	-1	-1	-1
Q1 Exit [V]	0	0	0
Cell focus [V]	-1	-1	-1
Deflect	12.6	-1.4	5
Q1 Bias [V]	-4	-4	-1
Q1 Prefilter Bias [V]	-38	-38	-26
Q1 Postfilter Bias [V]	-14	-14	-22
Collision/Reaction gas (L min^{-1})	0	5	30%
Oct RF [V]	150	150	150
Energy discrimination [V]	5	5	-7

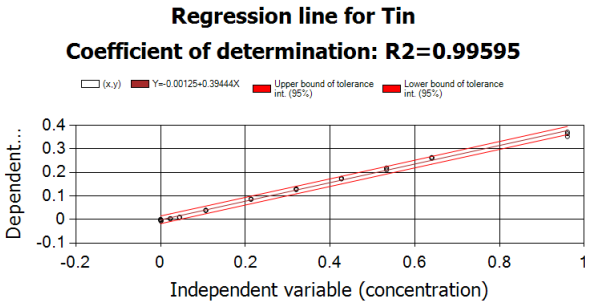
Figure S-1) Plot of the regression line and corresponding residuals of sulfur, iron, tin and iodine.

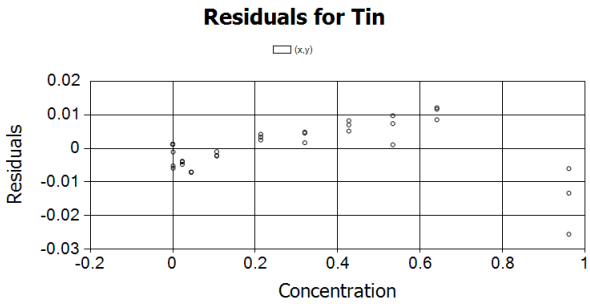


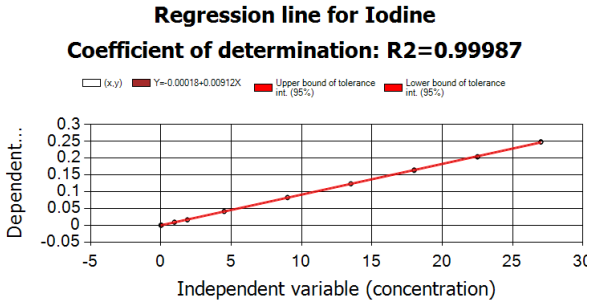












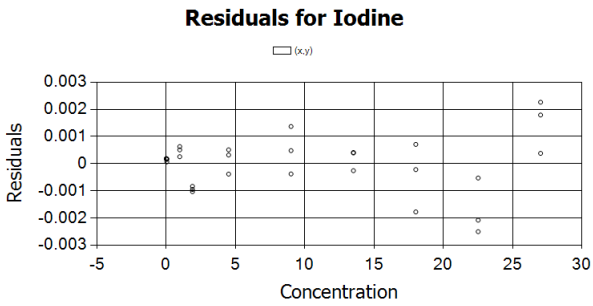


Table S-2) Results of the analysis of certified reference material Seronorm Trace elements in serum L2. The table represents the theoretical and the determined elemental concentrations and the corresponding recovery.

Element	Concentration [ng mL^{-1}]		Recovery [%]		Replicates
	Theoretical	Found (median)	Median	SD	n
B	82.10	80.79	98.40	1.84	3
Mg	33900	34042	100.42	1.00	6
Al	117.0	117.6	100.51	3.75	6
K	221000	220893	99.95	0.80	6
Ca	119000	125357	105.34	1.72	6
P	110000	116335	105.76	2.31	6
S	1335000	1406383	105.35	1.72	6
Ti	6.80	6.75	99.27	1.81	6
V	1.10	1.07	97.12	2.14	6
Cr	5.70	5.69	99.80	1.29	3
Mn	14.50	14.29	98.52	3.44	6
Fe	2150	2137.40	99.41	2.47	6
Co	3.05	2.91	95.49	1.20	6
Ni	9.00	8.75	97.25	1.50	6
Cu	1850	1903.35	102.88	3.00	6
Zn	1617	1607.19	99.39	1.44	6
As	0.38	0.37	96.53	8.87	5
Se	138.0	138.95	100.69	5.38	6
Br	773.0	681.22	88.13	1.72	6
Rb	8.70	9.46	108.71	3.90	6
Sr	110.0	112.22	102.02	1.40	6
Mo	1.21	1.00	82.91	4.04	6
Cd	0.14	0.13	94.90	4.07	6
Sn	0.25	<LOQ	n.a.	n.a.	n.a.
I	60.90	59.17	97.15	1.75	6
Cs	0.026	< LOQ	n.a.	n.a.	n.a.
Ba	135.0	133.4	98.79	4.10	6
Hg	2.05	2.17	105.80	4.78	3
Pb	0.66	0.61	92.58	2.37	6