

Supplementary information:

Table showing detection limits of the ICP-MS (mg/kg) for the six step sequential extraction procedure. For each sequential extraction step six reagent blanks were used to determine the limit of detection of the instrument, expressed as three times the standard deviation of the corresponding blanks.

Fractions	Cr	Co	Ni	Cu	Zn	As	Se	Mo	Cd	Pb	Mn
WS	0.009	6E-05	0.004	0.007	0.003	9E-05	0.0009	0.002	0.002	0.0005	0.004
AA7	0.04	8E-05	0.002	0.04	0.02	0.0005	0.01	0.002	0.0002	0.006	0.006
AA5	0.02	0.0001	0.0005	0.02	0.007	0.0003	0.01	0.0003	0.0003	0.003	0.005
HA3	0.002	0.002	0.001	0.01	0.009	0.001	0.007	0.001	0.0001	0.002	0.03
H ₂ O ₂	0.03	0.0003	0.02	0.02	0.01	0.0009	0.01	0.02	0.0003	0.001	0.01
HNO ₃	0.005	0.002	0.002	0.002	0.03	0.006	0.02	0.003	0.001	0.003	0.1

where abbreviations for fractions were represented by extraction reagent of each step: **WS**- water soluble, **AA7**- ammonium acetate at pH 7, **AA5**- ammonium acetate at pH 5, **HA**- Hydroxyl amine, **H₂O₂**- hydrogen peroxide and **HNO₃**- 7M nitric acid.