Spectrochimica Acta Part B: Atomic Spectroscopy 230 (2025) 107226

Contents lists available at ScienceDirect

Spectrochimica Acta Part B: Atomic Spectroscopy

journal homepage: www.elsevier.com/locate/sab

Corrigendum to "Total-reflection X-ray fluorescence analysis (TXRF) of plant's guttation fluids as a new, fast, and non-invasive strategy for the assessment of the bioavailability of Zn, Cd and Pb in contaminated soils" [Spectrochimica Acta Part B: Atomic Spectroscopy 230 (2025) 107217]

Carlo Porfido [a], Ignazio Allegretta [b,*], Eva Marguí [c], Matteo Garau [d], Maria Vittoria Pinna [d], Concetta Eliana Gattullo [a], Roberto Terzano [a], Matteo Spagnuolo [a]

[a] Department of Soil, Plant and Food Sciences, University of Bari, Via G. Amendola 165/A, 70126 Bari, Italy
[b] Department of Biological and Environmental Sciences, University of Salento, Via Monteroni 165, 73100 Lecce, Italy
[c] Department of Chemistry, University of Girona, C/M. Aurèlia Capmany, 69, 17003 Girona, Spain
[d] Department of Agricultural Sciences, University of Sassari, Viale Italia 39, 07100 Sassari, Italy

The authors regret that Table 1, Table 3 and Table 4 of the original version of the paper are not completely correct. Please, find the revised version of all these items below.

Table 1
Experimental parameters of the two S2 Picofox TXRF spectrometers used in this work.

Instrumental features	Mo-TXRF	W-TXRF
Anode	Mo	W
X-ray tube	Air-cooled metal ceramic	Air-cooled metal ceramic
Maximum power	30 W	50 W
Optics	Multilayer monochromator (17.5 keV)	Multilayer monochromator (35 keV)
Silicon drift detector	Area: 30 mm^2	Area: 30 mm^2
	FWHM: 139 eV (Mn-Kα)	FWHM: 147 eV (Mn-Kα)
Filter	Mo 10.0 μm	Ni 50.0 μm
Atmosphere	Air	Air
Voltage	50 kV	50 kV
Current	600 μA	1000 μA
Measuring time	1000 s	1000 s
Analytical lines	Zn-Kα: 8.637 keV	Zn-Kα: 8.637 keV
	Pb-Lα: 10.551 keV	Pb-Lα: 10.551 keV
	Cd-Lα: 3.133 keV	Cd-Kα: 23.173 keV

DOI of original article: https://doi.org/10.1016/j.sab.2025.107217.
* Corresponding author.
E-mail address: ignazio.allegretta@unisalento.it (I. Allegretta).

https://doi.org/10.1016/j.sab.2025.107226

Available online 11 May 2025
0584-8547/© 2025 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Table 3
Zn, Pb and Cd concentration (C), standard deviation (SD) and limit of detection (LoD) for the guttation fluid sample (GS) analysed with Mo- (for Zn and Pb) and W-TXRF spectrometer (for Zn, Pb and Cd) adopting the IS+S sample deposition strategy (IS: Y standard solution). The results of GF-AAS (for Pb and Cd) and ICP-OES (for Zn), performed on the same sample, are reported for validation.

Element	Mo–TXRF			W–TXRF			GF-AAS (Pb - Cd)/ICP-OES (Zn)		
	C	*SD*	*LoD*	*C*	*SD*	*LoD*	*C*	*EU*	*LoD**
	($\mu g\ L^{-1}$)			($\mu g\ L^{-1}$)			($\mu g\ L^{-1}$)		
Zn	31,811	1399.7	2.7	31,515	661.8	24.4	34,000	6800	1735
Pb	392	1.5	0.6	395	24.1	18.7	460	92	11
Cd	n.a.		n.a.	66	10.4	16.2	63	13	5

n.a.: not available; EU: expanded uncertainty, k = 2; *limit of detection after sample dilution (1:20 v/v for GF-AAS and 1:500 *v*/v for ICP-OES analysis).

Table 4
Comparison between Pb, Cd and Zn concentration in plants' guttation fluid samples as obtained with Mo-TXRF and W-TXRF spectrometers. GF-AAS and ICP-OES results, where available, are reported, too.

Element	Sample	Mo-TXRF		W-TXRF		GF-AAS (Pb - Cd) ICP-OES (Zn)	
		C	*SD*	*C*	*SD*	*C*	*EU*
		($\mu g\ L^{-1}$)		($\mu g\ L^{-1}$)		($\mu g\ L^{-1}$)	
Pb	Soil 1	248	13.3	213	24.2	n.a.	
	Soil 2	138	14.9	146	13.3	148	30
	Soil 3	1506*	53.5	1705*	26.6	n.a.	
	Soil 4	334	2.5	296	28.9	n.a.	
Cd	Soil 1	n.a.		68	14.5	n.a.	
	Soil 2	n.a.		<LOD		<LOD	
	Soil 3	n.a.		300	14.5	248	50
	Soil 4	n.a.		101	32.5	76	15
Zn	Soil 1	57,462	3901.0	55,594	1664.7	n.a.	
	Soil 2	15,138*	87.1	11,530*	250.8	13,000	2600
	Soil 3	78,401*	1901.6	84,229*	2573.4	69,500	13,900
	Soil 4	25,842	2346.0	25,859	949.6	29,000	6000

n.a.: not available; EU: expanded uncertainty, k = 2; *significantly different for $p < 0.05$ (*t*-test).

The authors would like to apologise for any inconvenience caused.