

Determination of cadmium, chromium and copper in vegetables of the *Solanaceae* family using high-resolution continuum source graphite furnace atomic absorption spectrometry and direct solid sample analysis

Electronic Supplementary Information (ESI)

Tables S.1, S.2 and S.3 show the concentrations of Cd, Cr and Cu of three samples of each vegetable (conventional and organic), which were obtained from different suppliers

Table S.1. Concentration of cadmium in vegetables of the *Solanaceae* family grown in three different locations each, and using both conventional and organic farming and HR-CS SS-GF AAS.

Vegetable	Conventional / $\mu\text{g kg}^{-1*}$			Organic / $\mu\text{g kg}^{-1*}$		
	Sample 1c	Sample 2c	Sample 3c	Sample 1o	Sample 2o	Sample 3o
Green Bell pepper	37 ± 4	38 ± 3	55 ± 2	35 ± 3	38 ± 3	39 ± 3
Yellow Bell pepper	11 ± 1	40 ± 1	58 ± 6	11 ± 1	12 ± 1	15 ± 1
Red Bell pepper	6.1 ± 0.6	12 ± 1	13 ± 2	5.0 ± 0.6	7.5 ± 0.5	9.5 ± 1
Tomato	30 ± 3	72 ± 6	78 ± 4	19 ± 1	32 ± 1	38 ± 4
Potato	14 ± 2	45 ± 3	55 ± 5	12 ± 1	14 ± 1	16 ± 2
Eggplant	54 ± 2	273 ± 31	301 ± 33	156 ± 9	159 ± 15	174 ± 10
Physalis	5.2 ± 0.6	5.3 ± 0.6	8.4 ± 0.8	<LOQ	<LOQ	<LOQ
Red pepper	63 ± 6	68 ± 4	84 ± 9	12 ± 1	51 ± 2	52 ± 2

LOQ = 2.6 ng g⁻¹ (*) Results are expressed as mean ± standard deviation (n=5)

Table S.2. Concentration of chromium in vegetables of the *Solanaceae* family grown in three different locations each, and using both conventional and organic farming and HR-CS SS-GF AAS.

Vegetable	Conventional / $\mu\text{g g}^{-1*}$			Organic / $\mu\text{g g}^{-1*}$		
	Sample 1c	Sample 2c	Sample 3c	Sample 1o	Sample 2o	Sample 3o
Green Bell pepper	0.23 \pm 0.01	0.33 \pm 0.03	0.88 \pm 0.09	0.44 \pm 0.03	0.71 \pm 0.03	1.0 \pm 0.1
Yellow Bellpepper	0.20 \pm 0.02	0.21 \pm 0.01	0.46 \pm 0.03	0.23 \pm 0.02	0.26 \pm 0.02	0.27 \pm 0.02
Red Bell pepper	0.18 \pm 0.01	0.23 \pm 0.02	0.34 \pm 0.01	0.33 \pm 0.03	0.65 \pm 0.07	0.67 \pm 0.07
Tomato	0.12 \pm 0.01	0.57 \pm 0.03	0.89 \pm 0.08	0.063 \pm 0.005	0.61 \pm 0.05	0.79 \pm 0.07
Potato	0.10 \pm 0.01	0.26 \pm 0.01	0.4 \pm 0.05	0.09 \pm 0.01	0.24 \pm 0.03	0.39 \pm 0.02
Eggplant	0.36 \pm 0.03	0.46 \pm 0.05	0.49 \pm 0.04	0.16 \pm 0.02	0.17 \pm 0.01	0.33 \pm 0.04
Physalis	0.40 \pm 0.05	0.49 \pm 0.06	1.1 \pm 0.1	0.15 \pm 0.02	0.20 \pm 0.02	0.57 \pm 0.05
Red pepper	0.42 \pm 0.04	0.49 \pm 0.06	0.61 \pm 0.06	0.14 \pm 0.02	0.26 \pm 0.02	0.71 \pm 0.03

(*) Results are expressed as mean \pm standard deviation (n=5)

Table S.3. Concentration of copper in vegetables of the *Solanaceae* family grown in three different locations each, and using both conventional and organic farming and HR-CS SS-GF AAS.

Vegetable	Conventional / $\mu\text{g g}^{-1*}$			Organic / $\mu\text{g g}^{-1*}$		
	Sample 1c	Sample 2c	Sample 3c	Sample 1o	Sample 2o	Sample 3o
Green bell pepper	14 \pm 1	15 \pm 1	18 \pm 2	7.1 \pm 0.6	8.0 \pm 0.6	13 \pm 1
YellowBellpepper	6.4 \pm 0.5	8.9 \pm 0.7	13 \pm 1	6.2 \pm 0.5	7.5 \pm 0.7	11 \pm 1
Red Bell pepper	6.9 \pm 0.6	8.3 \pm 0.7	14 \pm 1	11 \pm 1	12 \pm 1	13 \pm 1
Tomato	4.5 \pm 0.4	4.7 \pm 0.4	4.9 \pm 0.3	5.3 \pm 0.5	6.1 \pm 0.6	8.4 \pm 0.6
Potato	4.9 \pm 0.2	5.1 \pm 0.5	5.2 \pm 0.5	4.8 \pm 0.4	5.4 \pm 0.5	6.2 \pm 0.6
Eggplant	6.9 \pm 0.6	12 \pm 1	13 \pm 1	5.2 \pm 0.5	12 \pm 1	14 \pm 1
Physalis	6.0 \pm 0.6	6.9 \pm 0.6	7.4 \pm 0.7	7.0 \pm 0.6	11 \pm 1	11 \pm 1
Red pepper	4.7 \pm 0.4	5.2 \pm 0.4	5.3 \pm 0.5	6.7 \pm 0.7	7.4 \pm 0.7	8.8 \pm 0.8

(*) Results are expressed as mean \pm standard deviation (n=5)