

## Supplementary material

**Table 1** - Heating program used to determine the total concentration of Cu in different samples by ETAAS.

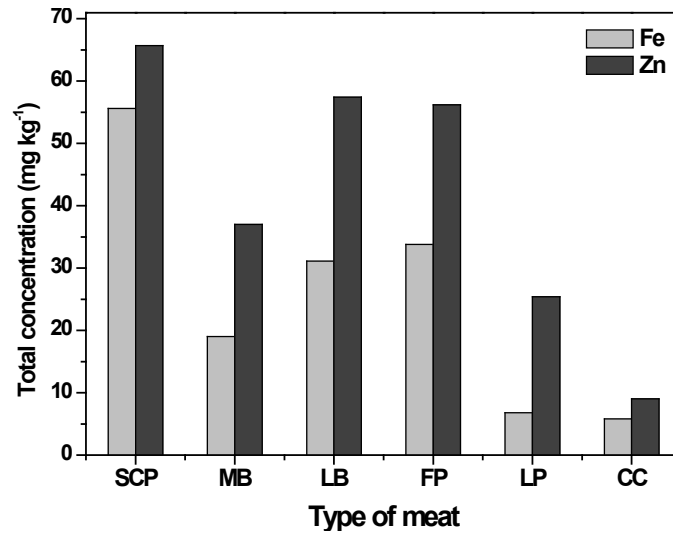
Step	Temperature (°C)	Gas flow rate (L min <sup>-1</sup> )	Time (s)
Drying	85	3.0	5.0
Drying	95	3.0	40.0
Drying	120	3.0	10.0
Pyrolysis	1000	3.0	5.0
Pyrolysis	1000	3.0	1.2
Pyrolysis	1000	0	2.0
Atomization	1900	0	0.8
Atomization	1900	0	2.0
Cleaning	2500	3.0	2.0

**Table 2** -Figures of merit of the proposed analytical method to determine the total Mg, Fe, Zn and Cu contents in different samples prepared.

Element	Analytical curve	R <sup>2</sup>	LOD	LOQ	Range
<b>Copper</b>	0.0057.c + 0.0111	0.9983	0.5303 <sup>b</sup>	1.7677 <sup>b</sup>	2.0 – 50.0 <sup>b</sup>
<b>Iron</b>	0.0501.c + 0.0027	0.9989	0.0339 <sup>a</sup>	0.1129 <sup>a</sup>	0.1 – 1.0 <sup>a</sup>
<b>Magnesium</b>	1.017.c + 0.0077	0.9963	0.0212 <sup>a</sup>	0.0706 <sup>a</sup>	0.1 – 5.0 <sup>a</sup>
<b>Zinc</b>	0.2496.c + 0.0068	0.9997	0.0739 <sup>a</sup>	0.2464 <sup>a</sup>	0.25 – 1.0 <sup>a</sup>

<sup>a</sup> LOQ, LOD and range (mg L<sup>-1</sup>) by FAAS.

<sup>b</sup> LOQ, LOD and range (µg L<sup>-1</sup>) by ETAAS.



**Figure 1** - Iron and zinc concentrations (mg kg<sup>-1</sup>) in different kind of meat after cooking process. SCP – cooked/seasoned Panelada, MB- muscle/bovine; LB – loin/bovine; FP – filet/pork; LP - loin/pork; CC – chest/chicken (Bilandžić et al., 2014; Tabela Brasileira de Composição de Alimentos, 2011).

## References

Bilandžić, N., Sedak, M., Đokić, M., Varenina, I., Kolanović, B. S., Božić, Đ., Brstilo, M., & Šimić, B. (2014). Determination of zinc concentrations in foods of animal origin, fish and shellfish from Croatia and assessment of their contribution to dietary intake. *Journal of Food Composition and Analysis*, 35(2), 61–66.

Tabela brasileira de composição de alimentos - TACO. (2011). *Tabela brasileira de composição de alimentos*. NEPA – Unicamp, Campinas, São Paulo, Brasil.