

## Supplementary Information

Table 1. Instrumental parameters used in the developed procedures for the determinations of Ca, Mg, Sr and Ba.

Analyte	Wavelength (nm)	Current (mA)	Slit (nm)	Integration time (s)
Ca	422.7	4.0	1.2	3
Mg	285.2	2.0	1.2	3
Sr	460.7	5.0	0.5	3
Ba	553.6	6.0	0.2	14

Table 2. Instrumental parameters optimized for determination of Ca, Mg e Sr by FAAS.

Analyte	Aspiration rate (mL min <sup>-1</sup> )	Burner height (mm)	Fuel flow (L h <sup>-1</sup> )	Fuel/Ox.
Ca	3.5	6.0	190	0.432
Mg	4.0	6.0	70	0.112
Sr	4.0	5.0	180	0.409