

Supplementary Materials

Analysis of Phytosterols Content in Italian-Standard Espresso Coffee

Franks Kamgang Nzekoue ¹, Laura Alessandroni ¹, Giovanni Caprioli ^{1,*}, Gulzhan Khamitova ¹, Luciano Navarini ², Massimo Ricciutelli ¹, Gianni Sagratini ¹, Alba Náchér Sempere ³ and Sauro Vittori ^{1,4,*}

¹ School of Pharmacy, University of Camerino, Via Sant'Agostino 1, 62032 Camerino, Italy; astride.kamgang@unicam.it (F.K.N.); laura.alessandroni@unicam.it (L.A.); gulzhan.khamitova@unicam.it (G.K.); massimo.ricciutelli@unicam.it (M.R.); gianni.sagratini@unicam.it (G.S.)

² Illycaffè S.p.A., Via Flavia 110, 34147 Trieste, Italy; luciano.navarini@illy.com

³ Institut Educació Secundària Pare Vitoria,AVINGUDA D'ELX, 15, 03801 Alcoi, Spain; al037833@iesparevitoria.com

⁴ International Hub for Coffee Research and Innovation, Via Emilio Betti 1, 62020 Belforte del Chienti, Italy

* Correspondence: giovanni.caprioli@unicam.it (G.C.); sauro.vittori@unicam.it (S.V.); Tel.: +39-0737402238 (G.C.)

Table S1. Method validation parameters.

N°	Compounds	Conc. Range ($\mu\text{g mL}^{-1}$)	Regression Equations ^a	R^2 ^b	LODs ^c (ng mL^{-1})	LOQs ^d (ng mL^{-1})	Reproducibility (RSD ^e %, $n = 3$)	
							Intraday ^f	Interday ^g
1	Cycloartenol	0.5–100	$y = 0.04x + 0.0677$	0.998	10	33	0.1%	1.3%
2	Campesterol	0.5–100	$y = 0.0461x + 0.0209$	0.999	12	40	0.1%	1.4%
3	Stigmasterol	0.5–100	$y = 0.0538x + 0.1197$	0.998	9	29	0.1%	1.7%
4	β - Sitosterol	0.5–100	$y = 0.0388x + 0.0107$	0.999	15	50	0.5%	3.9%

^a y = concentration, $\mu\text{g mL}^{-1}$; x = analyte peak area / internal standard peak area; ^b R^2 : Coefficient of determination; ^c LODs: (limit of detection) = $3 \times$ signal-to-noise (S/N); ^d LOQs: (limit of quantification) = $10 \times$ signal-to-noise (S/N) ratio; ^e RSD: Relative Standard Deviation; ^f Intraday: Obtained by analyzing 3 times a mixed standard solution at a concentration of $50 \mu\text{g mL}^{-1}$ on the same day; ^g Interday: Obtained by analyzing standard solutions at a concentration of $50 \mu\text{g mL}^{-1}$ during 3 consecutive days.