

# **Effect of extraction methodology on the phytochemical composition for *Camelia sinensis* instant teas from different provenances.**

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Supplementary Information

**Table S1.** Content of catechins in green teas in mg/g of extract of the samples, determined by HPLC (mg/g extract); **C** – China tea; **A** – Azores tea; **J** – Japan tea; **SL** – Sri Lanka Tea; **1**- Infusion; **2** – Maceration; **3** – Methanolic extract.; TCC – total catechins; TPC – Total phenolic content.

Sample	EGCG	EC	EGC	ECG	C	TP	TCC	$\% \left( \frac{TCC}{TCP} \right)$	GA	NCA	<i>o</i> -CQA	Q-3-gal	K
<b>C1</b>	105.65±10.21 <sup>b</sup>	32.65±0.10 <sup>b,c,d</sup>	11.05±2.57 <sup>d</sup>	24.42±2.16 <sup>b</sup>	0.95±0.22 <sup>b</sup>	183.69	174.72	95.12	2.39±0.04 <sup>d</sup>	3.34±0.07 <sup>b,c</sup>	2.24±0.11 <sup>c</sup>	1.07±0.11 <sup>b</sup>	0.93±0.10 <sup>c</sup>
<b>C2</b>	35.93±3.19 <sup>b</sup>	37.37±3.39 <sup>a,b,c</sup>	24.18±4.20 <sup>b</sup>	11.60±1.03 <sup>b,c</sup>	1.28±0.05 <sup>b</sup>	138.80	110.36	79.51	20.47±1.60 <sup>c</sup>	2.58±0.16 <sup>b,c</sup>	2.72±0.18 <sup>b,c</sup>	1.23±0.02 <sup>b</sup>	1.44±0.14 <sup>b</sup>
<b>C3</b>	102.53±29.88 <sup>b</sup>	6.58±0.18 <sup>d</sup>	16.81±2.87 <sup>b,c,d</sup>	52.62±9.04 <sup>a</sup>	<LOD	187.69	178.54	95.13	2.27±0.24 <sup>d</sup>	2.87±0.30 <sup>b,c</sup>	3.78±0.52 <sup>b,c</sup>	1.04±0.20 <sup>b</sup>	0.20±0.03 <sup>d</sup>
<b>J1</b>	109.13±0.82 <sup>b</sup>	61.01±1.38 <sup>a,b</sup>	23.43±0.55 <sup>b,c</sup>	22.96±1.21 <sup>b</sup>	1.20±0.01 <sup>b</sup>	259.88	217.74	83.78	33.85±0.10 <sup>b</sup>	3.13±0.10 <sup>b</sup>	2.47±0.11 <sup>c</sup>	1.19±0.07 <sup>b</sup>	1.50±0.04 <sup>b</sup>
<b>J2</b>	98.80±4.47 <sup>b</sup>	44.66±2.80 <sup>a,b,c</sup>	16.91±0.54 <sup>b,c,d</sup>	17.90±0.87 <sup>b,c</sup>	1.32±0.17 <sup>b</sup>	191.28	179.58	93.88	4.24±0.15 <sup>d</sup>	2.05±0.09 <sup>b,c</sup>	4.18±0.14 <sup>b,c</sup>	1.05±0.04 <sup>b</sup>	0.18±0.01 <sup>d</sup>
<b>J3</b>	139.28±8.83 <sup>b</sup>	21.91±3.67 <sup>c,d</sup>	15.12±1.37 <sup>c,d</sup>	60.40±1.88 <sup>a</sup>	<LOD	246.72	236.71	95.94	2.11±0.06 <sup>d</sup>	1.48±0.07 <sup>c</sup>	4.67±0.04 <sup>b</sup>	1.32±0.20 <sup>b</sup>	0.42±0.02 <sup>d</sup>
<b>SL1</b>	341.01±11.54 <sup>a</sup>	70.81±28.71 <sup>a</sup>	35.00±1.72 <sup>a</sup>	58.65±12.30 <sup>a</sup>	3.15±0.57 <sup>a</sup>	530.67	508.62	95.84	1.99±0.31 <sup>d</sup>	5.63±1.62 <sup>a</sup>	10.62±0.88 <sup>a</sup>	3.38±0.78 <sup>a</sup>	0.43±0.09 <sup>d</sup>
<b>SL2</b>	<LOD	64.16±1.58 <sup>a,b</sup>	24.79±5.57 <sup>b</sup>	0.72±0.06 <sup>c</sup>	0.97±0.63 <sup>b</sup>	195.81	90.64	46.29	99.02±6.68 <sup>a</sup>	1.37±0.05 <sup>c</sup>	2.45±0.10 <sup>c</sup>	0.90±0.08 <sup>b</sup>	1.42±0.08 <sup>b</sup>
<b>SL3</b>	123.25±7.90 <sup>b</sup>	25.46±3.71 <sup>c,d</sup>	17.38±0.69 <sup>b,c,d</sup>	70.88±4.89 <sup>a</sup>	<LOD	247.54	236.97	95.73	2.96±0.15 <sup>d</sup>	1.68±0.08 <sup>c</sup>	2.59±0.22 <sup>b,c</sup>	0.92±0.05 <sup>b</sup>	2.42±0.06 <sup>a</sup>

Values expressed as mean ± standard deviation obtained from three measurements per replicate. TP (total phenolics) = EGCG+EC+EGC+ECG+C+GA+ NCA+ *o*-CQA+ Q-3-gal+K. TCC (total catechin content) = EGCG+EC+EGC+ECG+C. For each compound, different lowercase superscripts indicate statistical significant differences ( $p < 0.05$ ).

**Table S2** Content of L-theanine, caffeine and theophylline in green teas expressed in mg/g of extract. **C**–China tea; **A**–Azores tea; **J**–Japan tea; **SL**–Sri Lanka Tea; **1**- Infusion; **2** – Maceration; **3** – methanolic extract.

Sample	L-Theanine	Caffeine	Theophylline
<b>C1</b>	304.70 ± 22.28 <sup>a</sup>	43.22 ± 3.34 <sup>c,d</sup>	0.039 ± 0.001 <sup>b</sup>
<b>C2</b>	137.51 ± 24.25 <sup>c,d</sup>	32.20 ± 3.05 <sup>d</sup>	0.014 ± 0.004 <sup>b</sup>
<b>C3</b>	<LOD	49.35 ± 6.16 <sup>c,d</sup>	0.046 ± 0.008 <sup>b</sup>
<b>J1</b>	121 ± 25.32 <sup>b,c,d</sup>	64.38 ± 2.53 <sup>b,c,d</sup>	0.032 ± 0.002 <sup>b</sup>
<b>J2</b>	199.49 ± 20.60 <sup>b</sup>	48.79 ± 2.34 <sup>c,d</sup>	0.041 ± 0.006 <sup>b</sup>
<b>J3</b>	<LOD	90.91 ± 5.76 <sup>b</sup>	0.080 ± 0.002 <sup>b</sup>
<b>SL1</b>	174.91 ± 11.70 <sup>d</sup>	141.0 ± 26.4 <sup>a</sup>	0.339 ± 0.069 <sup>a</sup>
<b>SL2</b>	242.81 ± 24.13 <sup>b,c</sup>	61.74 ± 4.50 <sup>b,c,d</sup>	0.007 ± 0.001 <sup>b</sup>
<b>SL3</b>	<LOD	75.67 ± 0.62 <sup>b,c</sup>	0.019 ± 0.001 <sup>b</sup>

Values expressed as mean ± standard deviation obtained from 3 measurements per replicate. For each parameter, different lowercase superscripts indicate statistically significant differences ( $p < 0$ ).