

Supplementary Materials

Development of a Green, Quick, and Efficient Method Based on Ultrasound-Assisted Extraction Followed by HPLC-DAD for the Analysis of Bioactive Glycoalkaloids in Potato Peel Waste

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Table S1. Potato peel varieties analyzed in this work and their specifications; *data obtained from the product labels.

Variety*	Origin*	Category*	Caliber (mm)*	Peel colour*	Use*	Moisture determined by freeze-drying (%)
Agata	France	I	50/80	Yellow	Boiling	83.15
Agria	Spain	I	50/75	Yellow	Frying	78.07
Amandine	France	I	40/65	Yellow	All elaborations	82.03
Amarin	Spain	I	50/80	Yellow	All elaborations	82.46
Caesar	France	I	50/80	Yellow	Frying, puree	84.33
Colomba	Spain	I	28/45	Yellow	Special for garnish	81.80
Evolution	Portugal	I	50/80	Red	All elaborations	82.86
Frisia	Spain	I	45/80	Yellow	All elaborations	83.66
Memphis	Spain	I	50/80	Red	All elaborations	85.40
Monalisa	France	I	50/80	Yellow	Frying, boiling	80.55
Lady Amarilla	Spain	I	50/80	Yellow	Frying	80.13
Rudolph	France	I	50/80	Red	All elaborations	82.97
Soprano	Spain	I	30/45	Yellow	Boiling, microwave	84.49
Universa	Spain	I	45/+	Yellow	Frying, oven, boiling, barbecue	79.95
Vivaldi	Spain	I	45/80	Yellow	All elaborations	82.49

Table S2. Values obtained from ANOVA analysis.

	Mean square	F-value	p-value
TGAs			
A	63168.4	3.597	0.0597
B	4.06734E6	231.631	0.0000*
C	152168	8.666	0.0123*
AB	96240.2	5.481	0.0096*
AC	66212.7	3.771	0.0536
BC	105768	6.023	0.0154*
CC	661.5	0.038	0.8494
R² = 0.9775; R²_{adj} = 0.9512; R²_{pred} = 0.8717			
α-solanine			
A	19856.3	1.270	0.3162
B	827242	52.883	0.0000*
C	51627.6	3.300	0.0943
AB	26981.4	1.725	0.2090
AC	68203.7	4.360	0.0377*
BC	37206.7	2.379	0.1349
CC	36296.3	2.320	0.1563
R² = 0.9180; R²_{adj} = 0.8223; R²_{pred} = 0.5643			
α-chaconine			
A	47084.1	14.905	0.0006*
B	1.21788E6	385.531	0.0000*
C	26526.7	8.397	0.0134*
AB	26760.4	8.471	0.0017*
AC	670.056	0.212	0.8118
BC	17523.4	5.547	0.0197*
CC	23688.2	7.499	0.0180*
R² = 0.9863; R²_{adj} = 0.9703; R²_{pred} = 0.9165			

*Significant at p≤0.05