

Hemp Flour Particle Size Affects the Quality and Nutritional Profile of the Enriched Functional Pasta

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Table S1. Retention time (min.), coefficient of determination (R^2) and linear regression model of external standards used for phenolic compounds calibration.

Phenolic compound	(RT min)	R^2	Linear Regression
Chlorogenic acid	9.5	0.949	$y=45.238x+36.969$
Catechin	10.06	0.993	$y=43,952x-12.043$
Sinapic acid	11.57	0.995	$y=36,497x+55.086$
Hydroxycinnamic acid	12.09	0.986	$y=46.141x+55.383$
Benzoic acid	13.27	0.993	$y=54.045x-72.121$
Kaempferol	14.97	0.984	$y=48.708x+116.66$
Rutin	16.2	0.983	$y=48.917x+102.65$

Table S2. Retention time (min.), coefficient of determination (R^2) and linear regression model of external standards used for aminoacids calibration.

Aminoacid	(RT min)	R^2	Linear Regression
L-Alanine	47.55	0.958	$y=941627x-83.308$
L-Arginine	34.57	0.936	$y=4*(10^6)x-314.65$
L-Aspartic Acid,	43.16	0.939	$y=636759x+44.438$
L-Cystine	55.06	0.988	$y=1*(10^6)x-59.647$
L-Glutamic Acid	43.32	0.949	$y=541591x+41.209$
L-Glycine	45.14	0.971	$y=1*(10^6)x-61.835$
L-Histidine	55.45	0.960	$y=1*(10^6)x-160.23$
L-Isoleucine	52.64	0.935	$y=1*(10^6)x+77.756$
L-Leucine	48.97	0.976	$y=1*(10^6)x-61.269$
L-Lysine	55.24	0.988	$y=1*(10^6)x-59.647$
L-Methionine	51.13	0.961	$y=993983x-10.114$
L-Phenylalanine	52.51	0.952	$y=1*(10^6)x+15.772$
L-Proline	56.80	0.939	$y=285823x+31.393$
L-Serine	42.22	0.940	$y=1*(10^6)x+48.224$
L-Threonine	44.16	0.955	$y=925910x+57.567$
L-Tyrosine	47.28	0.948	$y=815696x+87.85$
L-Valine	51.46	0.934	$y=870016x+38.288$
L-Tryptophan	56.55	0.976	$y=3*(10^6)x+161.81$
L-Asparagine	41.30	0.955	$y=4*(10^6)x-313.23$
L-Glutamine	41.20	0.951	$y=4*(10^6)x-314.65$

Table S3. Retention time (min.), formula, MS spectra, and accurate mass measurement of phenolic compounds identified

Phenolic compound	Formula	m/z [M-H] ⁻ calculated	m/z [M-H] ⁻ experimental	RT (min)
p-Hydroxybenzoic acid	C ₇ H ₆ O ₃	137.0239	137.0236	9.2
Protocatechuic acid	C ₇ H ₆ O ₄	153.0188	153.0182	7.3
Hydroxycinnamic acid	C ₉ H ₈ O ₃	163.0395	163.0395	11.4
Vanillic acid	C ₈ H ₈ O ₄	167.0344	167.034	11.0
Caffeic acid	C ₉ H ₈ O ₄	179.0344	179.0344	10.1
Ferulic acid	C ₁₀ H ₁₀ O ₄	193.0501	193.0509	12.1
Sinapic acid	C ₁₁ H ₁₂ O ₅	223.0606	223.0602	11.6
Catechin	C ₁₅ H ₁₄ O ₆	289.0712	289.0699	8.9
N-trans-Caffeoyltyramine	C ₁₇ H ₁₇ NO ₄	298.1079	298.1081	18.6
Chlorogenic acid	C ₁₆ H ₁₈ O ₉	353.0873	353.0871	9.6
Cannabisin B	C ₃₄ H ₃₂ N ₂ O ₈	595.2080	595.2078	12.3
Cannaflavin C	C ₂₆ H ₂₈ O ₆	609.2237	609.2240	12.8