

Sacha inchi (*Plukenetia volubilis* L.) husks and seed shells are sources of phenolic compounds with potential health benefits

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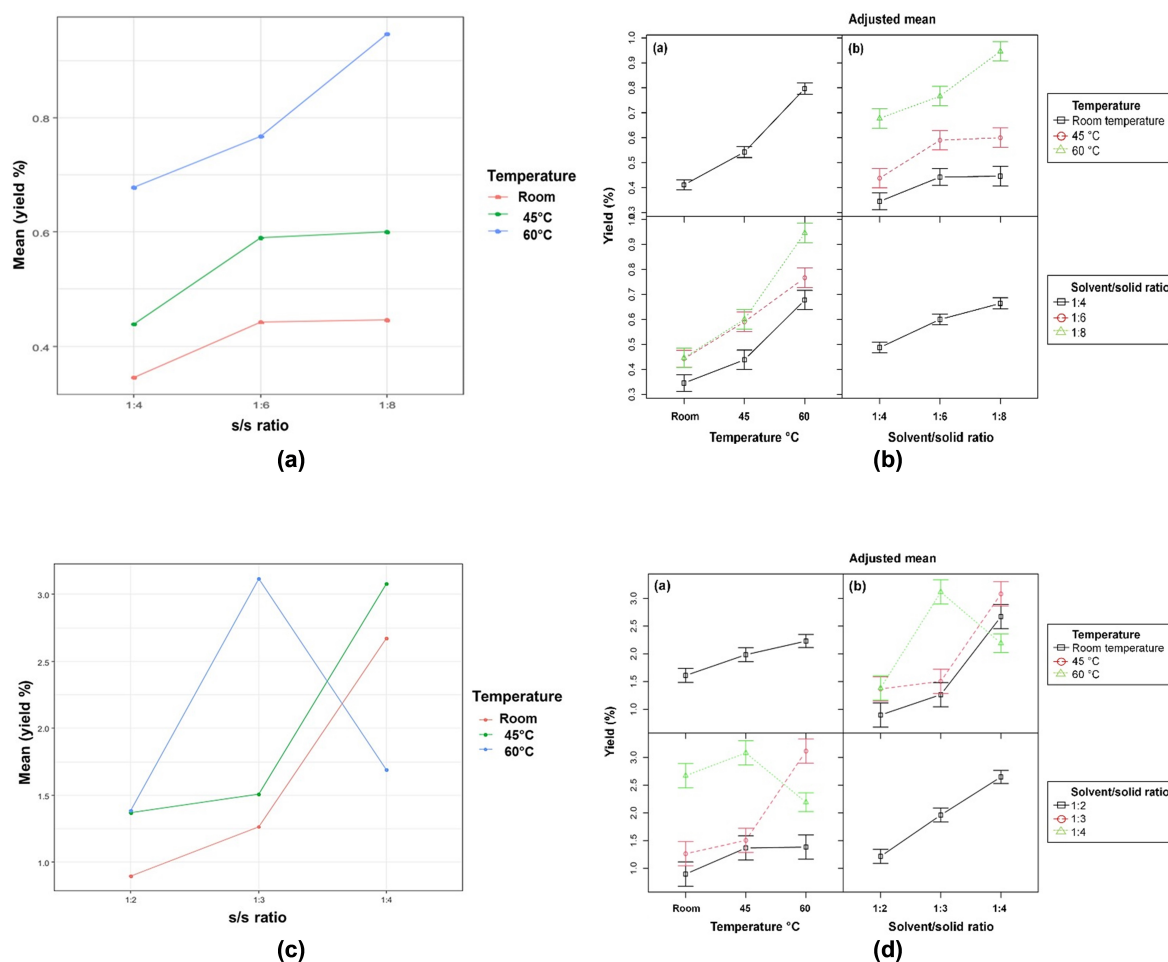


Figure 1. Interaction plot and SI-husk SI-shell yields. (a) interaction plot between the s-s ratio and SI-husk yield; (b) SI-husk yield according to temperature and s-s ratio; (c) interaction plot between the s-s ratio and SI-shell yield; and (d) SI-shell yield according to temperature and s-s ratio, with interaction.

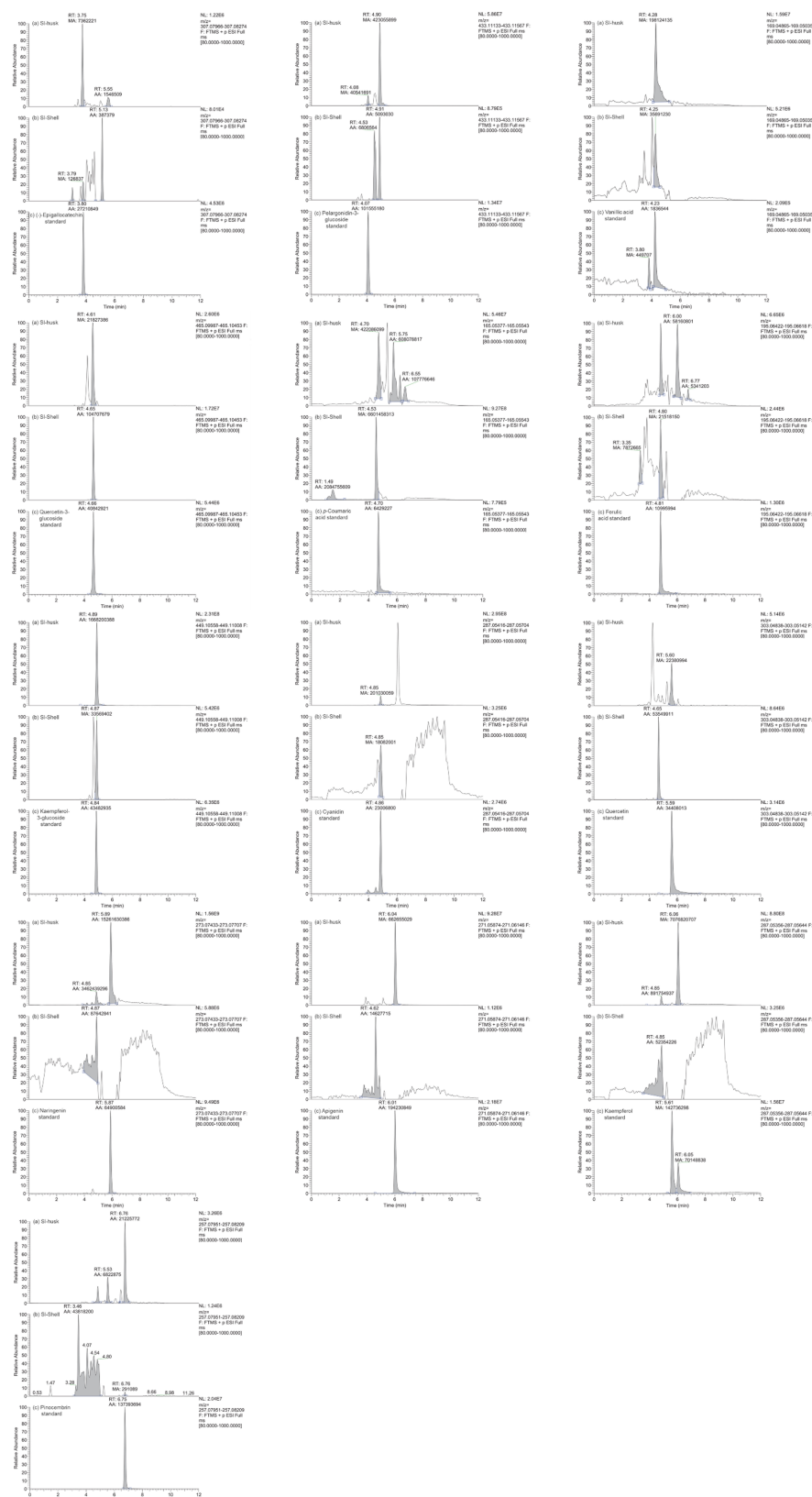


Figure 2. Mass fragmentograms obtained by UHPLC-ESI-Orbitrap-MS of phenolic compounds in SI-husk and SI-shell.

Table 1. Two-way ANOVA test without interaction for SI-husk.

Variable	Degrees of freedom	Sum of Squares	Root mean square	F value	P value
Temperature	2	0.75763	0.37881	70.872	8.498×10^{-11}
Solvent/solid ratio	2	0.14896	0.07448	13.935	9.629×10^{-5}
Residuals	24	0.12828	0.00535		

Table 2. Scheffé's test results for SI-husk.

Variable	Condition	Yield
Temperature	45°C	0.5430306
	60°C	0.7969085
	Room	0.4082733
Solvent/solid ratio	01:08	0.6642531
	01:06	0.5842407
	01:04	0.4729773

Table 3. Two-way ANOVA test without interaction for SI-shell.

Variable	Degrees of freedom	Sum of Squares	Root mean square	F value	P value
Temperature	2	10,523	0.5261	11,116	0.0007184
Solvent/solid ratio	2	72,718	36,359	76,814	1.53×10^{-09}
Temperature: Solvent/solid ratio	4	85,594	21,398	45,208	3.75×10^{-09}
Residuals	18	0.8520	0.0473		

Table 4. Mean and standard error for SI-shell yield for each treatment.

Treatment	Temperature	Solvent/solid ratio	Mean	Standard error
1	Room	01:02	0.897	0.1256
2	Room	01:03	1.263	0.1256
3	Room	01:04	2.673	0.1256
4	45°C	01:02	1.370	0.1256
5	45°C	01:03	1.507	0.1256
6	45°C	01:04	3.080	0.1256
7	60°C	01:02	1.383	0.1256
8	60°C	01:03	3.117	0.1256
9	60°C	01:04	2.190	0.1256