Optimized green extraction of multifunctional aliphatic and aromatic compounds from suberin-rich agro-industrial potato peel waste

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Table S1. Variation levels chosen for the variables selected for the optimization of the sodium hydroxide hydrolysis of suberin from potato peel waste by experimental design, i.e., temperature (X_1) and time (X_2). The results obtained for the responses, i.e., yield (Y) with NaOH solution at 0.1, 0.5, and 1M, are also reported.

Experiment	Variables		Responses		
	X_1 (°C)	X_2 (h)	Y (%) NaOH 0.1 M	Y (%) NaOH 0.5 M	Y (%) NaOH 1 M
1	40 (-1)	2 (-1)	2.2	2.7	8.5
2	40 (-1)	4 (-0.3333)	3.6	9.1	10.0
3	40 (-1)	6 (+0.3333)	3.0	16.5	11.9
4	40 (-1)	8 (+1)	4.9	20.1	14.6
5	55 (-0.5)	2 (-1)	4.2	12.3	15.1
6	55 (-0.5)	4 (-0.3333)	7.4	12.8	15.3
7	55 (-0.5)	6 (+0.3333)	4.1	18.0	17.9
8	55 (-0.5)	8 (+1)	6.0	19.7	19.4
9	70 (0)	2 (-1)	1.7	13.9	14.2
10	70 (0)	4 (-0.3333)	2.1	24.6	25.1
11	70 (0)	6 (+0.3333)	0.7	25.8	21.3
12	70 (0)	8 (+1)	3.0	24.0	23.6
13	85 (+0.5)	2(-1)	6.5	23.5	24.3
14	85 (+0.5)	4 (-0.3333)	4.8	18.8	23.4
15	85 (+0.5)	6 (+0.3333)	6.7	22.7	22.9
16	85 (+0.5)	8 (+1)	3.5	17.8	22.5
17	100 (+1)	2 (-1)	6.4	17.0	22.2
18	100 (+1)	4 (-0.3333)	6.1	9.7	13.8
19	100 (+1)	6 (+0.3333)	6.0	9.8	7.1
20	100 (+1)	8 (+1)	6.9	11.3	11.6

Table S2. Polynomial equations generated to evaluate the relationship between process variables, i.e., hydrolysis temperature (X_1) and time (X_2), and responses, i.e., recovery yields at different NaOH concentrations.

NaOH concentration	Polynomial equations
0.1 M	$Y\ (\%) = 3.72 + 1.16X_1 + 0.18X_2 - 0.62X_1X_2 + 1.41X_1^2 + 0.10X_2^2$
0.5 M	$Y\ (\%) = 21.49 + 0.93X_1 + 2.61X_2 - 5.83X_1X_2 - 9.26X_1^2 - 0.64X_2^2$
1 M	$Y\ (\%) = 21.40 + 2.25X_1 + 0.48X_2 - 4.16X_1X_2 - 9.26X_1^2 + 0.82X_2^2$