Additional File C: Manuka leaves extraction yield

Optimisation of ultrasound assisted extraction of antiacetylcholinesterase and antioxidant compounds from manuka (*Leptospermum scoparium*) for use as a phytomedicine against Alzheimer's disease

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Table C1. Yield of extraction ANOVA results.

Source	Sum of Squares	df	Mean Square	F-value	p-value	
Model	538.63	7	76.95	49.15	< 0.0001	significant
T-Temperature	3.92	1	3.92	2.50	0.1480	
t – Time	193.06	1	193.06	123.33	< 0.0001	
E – Ethanol concentration	141.96	1	141.96	90.68	< 0.0001	
Tt	36.00	1	36.00	23.00	0.0010	
tE	54.02	1	54.02	34.51	0.0002	
t^2	62.88	1	62.88	40.17	0.0001	
E^2	40.82	1	40.82	26.07	0.0006	
Residual	14.09	9	1.57			
Lack of Fit	13.39	5	2.68	15.30	0.0103	significant
Pure Error	0.7000	4	0.1750			
Cor Total	552.72	16				

Table C2. Yield model fit statistics.

Std. Dev.	1.25	**R^2**	0.9745
Mean	37.35	**Adjusted R^2**	0.9547
C.V. %	3.35	**Predicted R^2**	0.8709
		Adeq Precision	21.2630

Table C3. Final yield equation in terms of actual factors.

Yield	=
+23.75201	
-0.261579 T	
-1.13096 t	
+0.784836 E	
+0.031579 T * t	
+0.019342 t * E	
-0.042761 t^2	
-0.007773 E^2	

The equation in terms of actual factors can be used to make predictions about the response for given levels of each factor. Here, the levels should be specified in the original units for each factor. This equation should not be used to determine the relative impact of each factor because the coefficients are scaled to accommodate the units of each factor and the intercept is not at the centre of the design space.