

Supplementary document 2. The optimal condition for extraction of phenolic compounds using Box-Behnken design

	Optimal values (in a range)	Optimal values (Targeted)
<i>Independent variables</i>		
Liquid-solid ratio (mL/g)	52.9	52.9
Sonication time (min)	40.6	40.6
Sonication temperature (°C)	51.8	52.0
Microwave time (min)	16.8	16.8
<i>Dependent variables</i>		
Yield (%, dry basis)	30.4	31.7 ± 1.8
Total phenolic content (mg gallic acid equivalent/g dried cocoa bean shells)	14.8	14.7 ± 0.3