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**The effects of ultrasound assisted extraction on antioxidative activity of polyphenolics
obtained from *Momordica charantia* fruit using response surface approach**

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ABSTRACT

Bitter gourd (*Momordica charantia*) fruits are known to be rich sources in polyphenolic antioxidant compounds. However, due to difficulties incorporated with industrial extraction, their commercial use has remained limited. Ultrasonic assisted extraction of antioxidant compounds from bitter gourd fruits in aqueous ethanolic solvent was investigated using Response Surface Methodology to understand key impact of variables. A 3 level, 3 factor Box–Behnken Design was used to investigate and optimize the impact of extraction time (20, 40, 60 min), temperature (30, 45, 60°C) and induced calorimetric power (38.50, 53.25, 68.00 W) on total phenolic content (TPC), total flavonoid content (TFC), Ferric reducing/antioxidant power

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