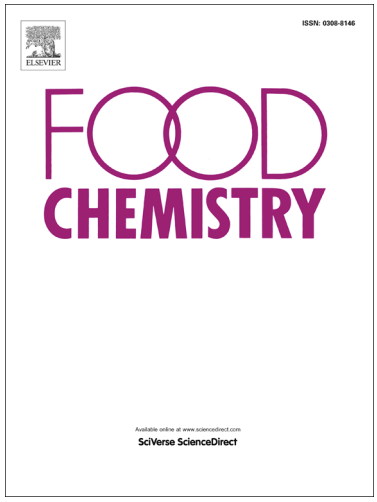

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Bioassay-guided fractionation of *Artocarpus heterophyllus* L. J33 variety fruit waste extract and identification of its antioxidant constituents by TOF-LCMS

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Abstract

We have previously reported on the antioxidant potential of *Artocarpus heterophyllus* J33 (AhJ33) variety fruit waste from different extraction methods. In the study, the rind maceration extract (RDM) exhibited the highest phenolic and polyphenolic contents and strongest antioxidant potential measured by the DPPH assay (R^2= 0.99). In this paper, we now report on the bioassay-guided fractionation of the active ethyl acetate (EtOAC) fraction of RDM and its TOF-LCMS analysis. Seven sub-fractions resulting from the chromatographic separation of the EtOAC fraction showed radical scavenging activities between 80-94% inhibition. Identification of constituents led to the identification of fifteen compounds comprising 5 phenolics and 10 non-phenolic compounds, 11 of which reported for the first time from AhJ33 variety. Most of the identified compounds have been reported to possess antioxidant ability in many previous studies. This indicates that AhJ33 is a promising source of antioxidants for the development of food and nutraceutical products.