

## Accepted Manuscript

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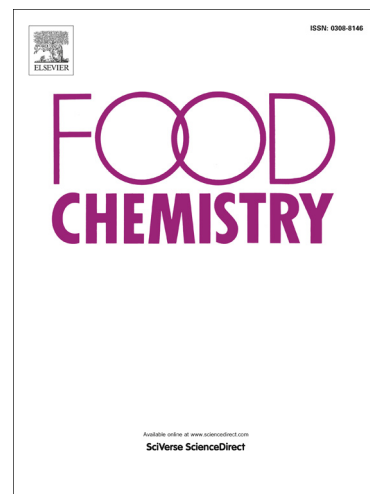
PII: S0308-8146(16)30604-5  
DOI: <http://dx.doi.org/10.1016/j.foodchem.2016.04.077>  
Reference: FOCH 19084

To appear in: *Food Chemistry*

Received Date: 10 September 2015  
Revised Date: 1 April 2016  
Accepted Date: 17 April 2016

Please cite this article as: Borges, P.R.S., Tavares, E.G., Guimarães, I.C., Rocha, R.d.P., Silva Araujo, A.B., Nunes, E.E., de Barros VilasBoas, E.V., Obtaining a protocol for extraction of phenolics from açai fruit pulp through Plackett–Burman design and response surface methodology, *Food Chemistry* (2016), doi: <http://dx.doi.org/10.1016/j.foodchem.2016.04.077>

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Obtaining a protocol for extraction of phenolics from açai fruit pulp through Plackett–Burman design and response surface methodology

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**ABSTRACT** – This work aimed to obtain a simplified extraction protocol for simultaneous achievement of total anthocyanin and total phenolic in açai pulp using a 3-step optimization approach. First, a Plackett–Burman 20 was applied in 16 independent variables selected in literature. Secondly, seven factors pre-selected in the first screening were reassessed using a Plackett–Burman 12. Then, four selected factors; solid/solvent ratio (g:mL), acetone concentration (%), time of extraction in acidified ethanolic solution (min) and ethanol concentration (%) were optimized using a central composite design with response surface methodology. In addition, the optimized protocol were compared with two standardized extraction procedures assessing açai and grape pulps. The optimized method is effective for the simultaneous extraction of total phenolics and total anthocyanins, allowing representative measurements of free radical-scavenging capacity (DPPH) and trolox equivalent capacity (TEAC) of grape and açai pulps, with savings of time and reagents, moreover, avoiding the use of methanol.

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