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Title: Identification of phenolic compounds in soursop (*Annona muricata*) pulp by high-performance liquid chromatography with diode array and electrospray ionization mass spectrometric detection

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Abstract: Soursop (*Annona muricata* L., Annonaceae) is a neotropical fruit species producing large fruits that can be consumed fresh and mainly processed. While the leaves, roots and stems of this species have been the subject of reiterated phytochemical studies, their fruits have received less attention. Phenolic compounds were extracted from the pulp of ripe soursop fruits and separated into two fractions by solid phase extraction. The first was eluted with water and HCl (0.01%), while the second was obtained with ethyl acetate. Their characterization was conducted with high-performance liquid chromatography with diode array and electrospray ionization mass spectrometric detection. The analytical system allowed the separation and tentative identification of 16 phenolic compounds, mainly based on MS fragmentation patterns. Prevalent compounds were a cinnamic acid derivative and p-coumaric acid, together with several other minor compounds that may have health benefits due to antioxidant characteristics. To the best of our knowledge, this is the first study on the phenolic composition of soursop fruit pulp based on a mass spectrometric method. (C) 2014 Elsevier Ltd. All rights reserved.

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