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**Book of Abstracts**

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## Extraction and structural characterization of polysaccharides from Gabiroba pulp (*Campomanesia xanthocarpa* Berg)

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### Abstract

Pectins and hemicelluloses have been extracted from the pulp of Gabiroba (*Campomanesia xanthocarpa* Berg), a Brazilian native fruit, from Myrtaceae family and their structure have been evaluated. The pulp of gabiroba was subjected to successive aqueous, acid and alkaline extractions, to give rise to polysaccharide extracts, GW (5.1 g %), GCA (1.4 g%) and GA2M (3.6 g%), respectively. These fractions were analyzed for their monosaccharide composition by gas chromatography coupled to mass spectrometry (GC-MS) and the content of acid monosaccharides determined by colorimetric method and high-performance anion-exchange chromatography with pulsed amperometric detection (HPAEC-PAD). Fractions GW and GCA showed arabinose (46% and 40%) and galacturonic acid (34% and 23%), respectively, as the main monosaccharide components, characterizing the presence of pectins. While GA2M showed to be mainly composed of xylose (70%) followed by glucose (14%). All extracts were subjected to fractionation by freeze-thaw showing heterogeneous elution profiles assessed by high-pressure steric exclusion chromatography coupled to multi-angle laser light scattering (HPSEC-MALLS). Fraction GA2M was submitted to <sup>13</sup>C nuclear magnetic resonance (NMR), giving a five main signal spectrum. All signals could be assigned, 101.7 ppm (C1), 72.7 (C2), 74.0 (C3), 75.6 (C4 substituted) and 63.2 (C5), suggesting the presence of a linear (1→4)-linked β-D-xylan. For the other fractions typical pectin (arabinan and homogalacturonan) signals could be assigned, as suggested by their monosaccharide composition.

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