

ANALYSIS OF CATECHIN AND EPICATECHIN CONTENTS IN LEAVES OF
MAYTENUS ILICIFOLIA

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Catechins are polyphenolic antioxidant plant metabolites, classified as flavan-3-ols, and are present in numerous plant species, especially from *Camellia sinensis* (green tea). Due to the importance of catechins on human health, methodologies for their analysis have been developed. We have now evaluated two chromatographic techniques directed to determine the contents of catechin and epicatechin present in leaves of *Maytenus ilicifolia*. An aqueous extract, containing low molecular mass components, was analyzed by GC-MS, after its silylation. Two peaks on chromatogram had the same R_f s and E.I. fragmentations from those (+)-catechin and (-)-epicatechin. Using HPLC in isocratic solvent flux, we had an ideal resolution, simpler than previous investigations. Samples and standards were detected by DAD, and four peaks appeared with the same λ max. at 231 and 279 nm. HPLC was coupled to ES-MS, to provide a qualitative analysis. In the negative ion mode, the ions had m/z 289, and the same CID partners. Since enantiomeric separation needs special columns and methods, we discarded the possibility that enantiomers would be separated. Further investigations are being carried out to identify the two remaining components. Purification and $^1\text{H}/^{13}\text{C}$ NMR analysis of components are necessary, since other polyphenolics, such as luteoforol, may differ from catechin and epicatechin by a single hydroxyl group.

Supported by CNPq, PRONEX-Carboidratos and Fundação Araucária