Study of phenolic composition and antioxidant activity of myrtle leaves and fruits as a function of maturation

Auteurs :

Louiza Babou, Lila Hadidi, Clara Grosso, Farid Zaidi, Patrícia Valentão, Paula B Andrade

Date de publication :2016/9/1

Revue :European Food Research and Technology

Volume :242

Numéro :9

Pages :1447-1457

Éditeur :Springer Berlin Heidelberg

Description :
This is the first study about the influence of the maturation stage and of extraction processes on the phenolic content, radical scavenging properties and inhibition of cholinesterases by leaves and fruits (whole fruit, seeds and pericarp) of Myrtus communis. Ten phenolic compounds were identified by HPLC–DAD in six different plant materials, namely gallic acid, delphinidin-3-O-glucoside, myricetin-3-O-rhamnoside, quercetin-3-O-galactoside, quercetin-3-O-rutinoside, malvidin-3-O-glucoside, myricetin, ellagic acid, quercetin and kaempferol. All extracts exhibited a dose-dependent effect against DPPH, superoxide anion (O 2 ●−) and nitric oxide (●NO) radicals. Leaves collected in September and December, ripe berries harvested in December and seeds from ripe berries were the most active ones, displaying IC50 values between 3.89 and 19.02, 24.19 and 34.69 and 13.69 …