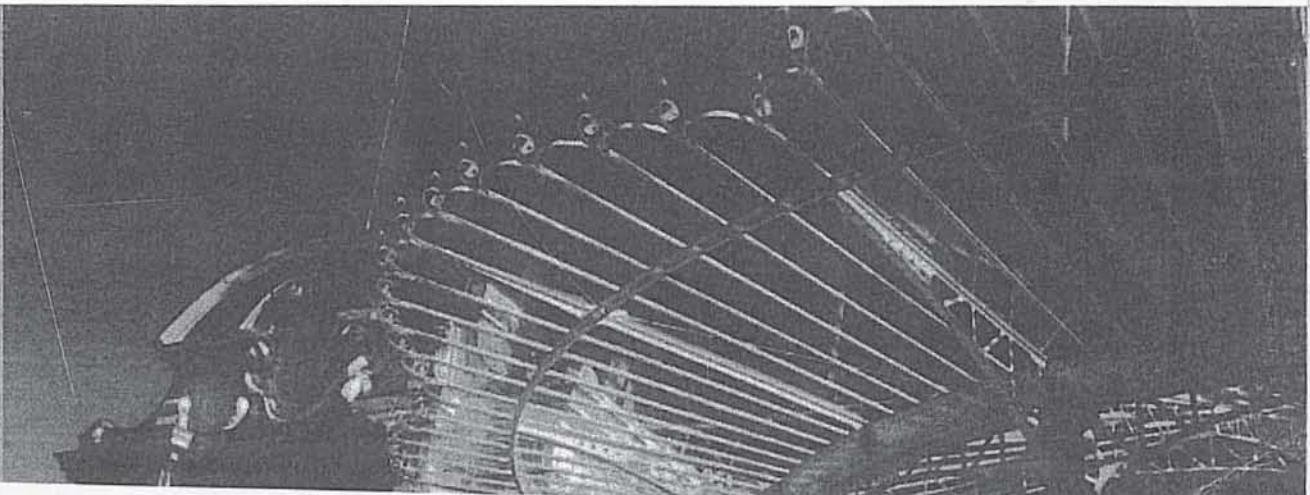


Abstract books

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Analysis of phenolic compounds from hazelnut (*Corylus avellana L.*) leaves

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Hazelnut leaf has been used in folk medicine in varicose veins and haemorrhoidal symptomatology for its vasoconstrictor and antihaemorrhagic properties. Slight antidysenteric, antifungal and healing properties have also been described (1,2).

The purpose of this study is to contribute to the characterization of the hazelnut leaves in what the phenolic profile is concerned. Here we report an HPLC/DAD method that can be useful to control analysis based on the phenolic composition.

As far as we know, only 5-caffeoylequinic acid, myricetin 3-rhamnoside and quercetin 3-rhamnoside have been described among phenolic compounds of hazelnut leaf (1). Using a reversed-phase HPLC/DAD and a HPLC/DAD/MS procedure three phenolic acids (5-caffeoylequinic, caffeoyltartaric and p-coumaroyltartaric acids) and five flavonoids (myricetin 3-rhamnoside, quercetin 3-glucoside, quercetin 3-galactoside, quercetin 3-rhamnoside and kaempferol 3-rhamnoside) have been identified.

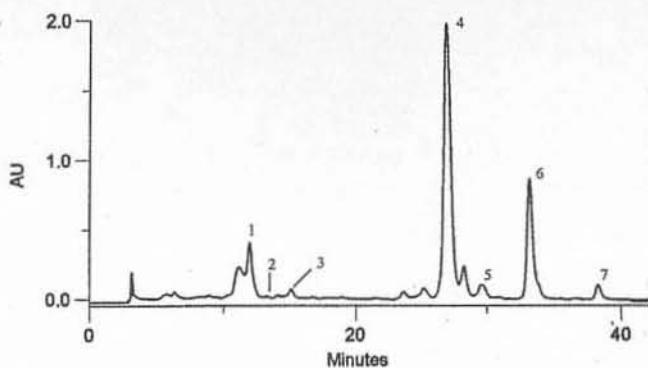


Figure 1. HPLC/DAD hazelnut leaf phenolic profile. Detection at 309 nm.

1: 5-caffeoylequinic acid; **2:** caffeoyltartaric acid; **3:** p-coumaroyltartaric acid; **4:** myricetin 3-rhamnoside; **5:** quercetin 3-glucoside and quercetin 3-galactoside; **6:** quercetin 3-rhamnoside; **7:** kaempferol 3-rhamnoside

References :

1. Fraisse, D., Carnat, A., Carnat, A.-P., Lamaison, J.-L. Standardisation de la feuille de noisetier. Ann. Pharm. Fr. 1999, 57:406-409.
2. Bruneton, J., Pharmacognosie phytochimie, plantes médicinales, Tec. & Doc.- Lavoisier, Paris. 1993, pp. 124.

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