

QUANTIFICATION OF HYPEROSIDE IN AN WALNUT TREE LEAVES HYDROGLYCOLIC EXTRACT

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The walnut tree is a magnificent asiatic species with a smooth and ashy bark. It is cultivated throughout France and Europe, for its numerous properties coming from its fruits and its leaves.

Walnut tree leaves are widely used in dermo-cosmetic and are well-known for their high concentration in flavonoids and more particularly in hyperoside (quercetin-3-O-galactoside). This molecule strongly contributes to the different claimed properties for walnut tree extract and especially to improve circulation of blood.

It's why, we have developed a walnut tree leaves extract, titrated in total flavonoids in which we have decided to determine hyperoside concentration.

Separation and revelation parameters were easily determined because we have used specific mobile-phase and detection method of glycosylated flavonoids characterization.

Nevertheless, in order to determine and optimise the low limit level detection of the molecule, the choice of the wavelength and of the lamp was critical, because of revelation and observation conditions (fluorescence).

In addition, reproducibility and calibration linearity problems have been observed and have made known particularly the importance of plate drying after revelation.