DETERMINATION OF MYRICETIN IN MEDICINAL PLANTS
BY HPLC-MS

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Flavonoids are a large family of over 4000 ubiquitous secondary plant metabolites, which can be further divided into five subclasses including flavonols, flavones, anthocyanins, catechins and flavonones. Flavonols (e.g. quercetin and myricetin) are a group of flavonoids that occur in foods [1]. Flavonols have been reported to be beneficial effects on health as antioxidants, anti-mutagenic, anti-inflammatory and anti-carcinogens [2]. So, there is an interest in the determination of these compounds in plant samples.

In this study, The parameters that may affect the signal of myricetin in the HPLC-MS were optimized. In the optimization, all parameters were kept at optimum values while one parameter is optimized. The parameters, fragmentor, injection volume, column temperature, flow rate of mobile phase, were examined. To determination of myricetin in medicinal plants, rosa hip (Rosa canina), nettle (Urtica dioica), terebinth (Terebinthina chica), purslane (Portulace oleracea) plants were extracted using different extraction methods, and the optimized conditions were applied to these extracts. In studied plant samples, myricetin concentrations were found in the range of 1.12-44.7 mg kg⁻¹.

References


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