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Research Article **Published Date:-2021-10-12 12:43:43**

A validated method for coumarin quantification in Meliloti herba and its ethanolic extracts using micellar thin-layer chromatography

A micellar thin-layer chromatography method for the quantitative determination and validation of coumarin in Meliloti herba and its ethanolic extracts was developed and validated. For achieving good determination, the mobile phase of 5 x 10^{-4} mol/L Tween-80 in a mixture propanol-2 – water (5:95 *v/v*) was used. Densitometric determination was carried out at 275 nm. The calibration curve was linear in the range of 0.1-2.5 ?g per band. The proposed method is simple, rapid, precise and accurate; replacing hazardous solvents by greener ones correspond to the modern requirements in “Green chemistry” concepts. The obtained data can be used for the routine analysis of coumarin in medical plant and extracts.

Research Article **Published Date:-2021-04-07 00:00:00**

Overview on liquid chromatography and its greener chemistry application

This literature review is concerning with liquid chromatography specifically high performance liquid chromatography (HPLC), Ultra high performance liquid chromatography (UHPLC), chromatography theory, chromatographic parameters, monolithic columns, principles of green chemistry and its application ingreen chromatography.

Review Article **Published Date:-2021-02-04 00:00:00**

Polyolefin nanocomposites based on metallocene catalysts

In recent years polyolefin nanocomposites are of great interest because of their high potential as materials with novel properties [1,2]. The properties of the nanocomposites are not only influenced by the kind of fillers but also by the microstructure of the polyolefin, the distribution of the fillers, and the preparation process. Nanocomposites prepared by extrusion moulding of mixed polyolefin and nanoparticles show often less stability by agglomeration of the nanoparticles. A better distribution is obtained if the polymerization catalyst is absorbed on the surface of the nanoparticles. After adding an olefin a growing film of the polyolefin is covering every nanoparticle (in situ polymerization).
