SHORT COMMUNICATIONS

APPLICATION OF VEGETABLE OILS AS NATURAL, GREEN AND SUSTAINABLE SOLVENTS FOR EXTRACTION OF PLANT MATERIALS: STUDY OF PHYTOCHEMICAL CHARACTERIZATION AND CHEMICAL PROFILING OF VARIOUS OLEO-EXTRACTS OF *GLYCYRRHIZA GLABRA*

ABSTRACT

In the last decade there is a growing interest in application of green and more friendly environment solvents in both industrial and academia sectors due to various environmental concerns. Vegetable oils has been used as effective natural non-toxic and environment-friendly solvents for extraction of various classes of phytochemical constituents from different herbs. In the present study, various edible vegetable oils like palm oil, rice bran oil, sesame oil and sunflower oil were used for preparation of oleo-extract of a medicinal plant *Glycyrrhiza glabra,* commonly known as Licorice. The resulting extracts were analyzed by HPTLC. Determination of Total Phenolic Contents (TPC) and Total Flavonoid Contents (TFC) was carried out by UV-Vis spectrophotometry method for standardization of the oleo-extracts of the herb. The HPTLC fingerprint showed presence of licorice components and phenolics and flavonoids in various oleo-extracts of the herb. So the oils exhibited satisfactory solvent effects with capability of extracting various phytochemicals from licorice and can be a used as a greener, safer and alternative approach to petrochemical solvents for herbal drug extraction and enrichment of phytoconstituents.