

Antioxidant Potential of Methanolic Extracts of Four Indian Aromatic Plants

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Abstract : Plants produce a large variety of secondary metabolites. Phenolics are the compounds that contain hydroxyl functional group on an aromatic ring. These are chemically heterogeneous compounds. Some are soluble only in organic solvents, some are water soluble and others are large insoluble polymers. Flavonoids are one of the largest classes of plant phenolics. The carbon skeleton of a flavonoid contains 15 carbons arranged in two aromatic rings connected by a three carbon bridge. Both phenolics and flavonoids are good natural antioxidants. Four Indian aromatic plants were selected for the study i.e, Achillea species, Jasminum primulinum, Leucas cephalotes and Leonotis nepetaefolia. All the plant species were collected from Chail region of Himachal Pradesh, India. The identifying features and anatomical studies were done of the part containing the essential oils. Phenolic content was estimated by Folin Ciocalteu's method and flavonoids content by aluminium chloride method. Antioxidant property was checked by using DPPH method. Maximum antioxidant potential was found in Achillea species, followed by Leonotis nepetaefolia, Jasminum primulinum and Leucas cephalotes. Phenolics and flavonoids are important compounds that serve as defences against herbivores and pathogens. Others function in attracting pollinators and absorbing harmful radiations.

Keywords : antioxidants, DPPH, flavonoids, phenolics

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