

THE EFFECT OF DIFFERENT METHODS OF EXTRACTION OF ESSENTIAL OILS AND THEIR COMPONENTS FROM AROMATIC PLANTS IN IRAN

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Essential oils have been used for more than 50 centuries for natural remedies for various conditions. The Iranian states have a very rich flora with a variety of indigenous species. Essential oils are substances extracted from flowers, herbs, seeds, bark and buds i.e. rose, lemongrass, caraway, cinnamon and clove respectively. These oils are often used for their flavour and their odoriferous properties, in medicines, and cosmetics. There are wide number of distillation methods as steam- and hydro-distillation. When steam passes through the herb material the vapour allows passing through condenser and oil is collected in separating funnel and separated. Composition data for *Rosa damasena*, traditionally used for treatment of infectious diseases and rose hip were assayed for the fatty acids. In this research, the volatile oil obtained by hydrodistillation of the petals rich in sesquiterpenes and 19 sesquiterpenes, 29 aliphatic, β -citronellol, geraniol and phenyl ethyl alcohol as the main components and next, *Tanacetum partenium* in the flowering stage, was camphor and bornyl acetate, camphene, and essential oils *Eucalyptus camaldulensis*, contain α -pinene, 1,8-cineol and pinocarveol-trans. The composition of the oil can vary depending on the time of day, season, geographic location, method and duration of distillation, year grown, and the weather. Oil were studied and found the oil can be used as biochemical, anti-bacterial and to control the pest.

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