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Extraction and Uses of Essential Oil

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Abstract : A large number of herb materials contain Essential Oils with extensive bioactivities. Acknowledging the importance of plants and its medicinal value, extraction of Essential Oil had been done using Steam Distillation method. In this project, Steam Distillation was used to extract oil from different plant materials like Chamomilla recutita (L.) Rauschert, Artemisia Vulgaris L, Rhododendron anthopogon D. Don, Cymbopogon nardus L, Andropogon nardus, Cinnamomum tamala, Juniperus spp, Cymbopohonflexuosus flexuous, Mantha Arvensia, Nardostachys Jatamansi, Wintergreen Essential Oil, and Valeriana Officinalis. Research has confirmed centuries of practical use of essential oils, and we now know that the 'fragrant pharmacy' contains compounds with an extremely broad range of biochemical effects. Essential oils are so termed as they are believed to represent the very essence of odor and flavor. The recovery of Essential Oil from the raw botanical starting material is very important since the quality of the oil is greatly influenced during this step. There is a variety of methods for obtaining volatile oils from plants. Steam distillation method was found to be one of the promising techniques for the extraction of essential oil from plants as reputable distiller will preserve the original qualities of the plant. The distillation was conducted in Clevenger apparatus in which boiling, condensing, and decantation was done. Analysis of essential oil was done using Gas Chromatography-Mass Spectrometer apparatus, which gives evaluates essential oil qualitatively and quantitatively. The volume of essential oil obtained was changing with respect to temperature and time of heating.

Keywords : Chamomilla recutita (L.) Rauschert, Artemisia Vulgaris L, Rhododendron anthopogon D. Don, Cymbopogon nardus L, Andropogon nardus, Cinnamomum tamala, Juniperus spp, Cymbopohonflexuosus flexuous, Mantha
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