Characteristic Features and Comparative analysis of essential oil composition of selected species of Ocimum sanctum L. through GCMS

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February 20, 2021

Abstract

Background: The main aim of this research is to provide a literature of the Ocimum plant, to know the significance of the Ocimum species carried out by pharmacognostical study and experimental design for GC-MS.Ocimum are very important for their therapeutic potentials. among the most important aromatic herbs for its enormous medicinal properties. Methods: An extreme Attention has been put on those literature reports wherein the utilization of Tulsi and their pharmacognostical study has been done by performing morphological and microscopic leaf and experimental design by using essential oil by GC-MS instrumentation method Results: The utilization of these characteristics would be important for the drug discovery scientist to develop a specific formulation of the crude drug, which will be a magical therapeutic agent in the future, with the many advantageous. GC-MS chromatogram of the Ocimum sanctum, Ocimum canum and Ocimum gratissimum oil showed major peaks and has been identified after comparison of the mass spectra with NIST library, indicating the presence of three phytocomponents. From the results GC-MS study suggested that anethole which is well reported antimicrobial compound is more in O. canum (2.66%) in comparison to O. sanctum (1,28%) but absent in O. Gratissimum. The results indicated that the antimicrobial activity is more in O. canum due to presence high amount of anethole in comparison to O.Gratissimum, and O. Sanctum. The GC-MS study suggested that anethole which is well reported antimicrobial compound is more in O. canum (2.66%) in comparison to O. sanctum (1,28%) but absent in O. Gratissimum. Conculsion: The result showed that microscopic character of O. canum, with the characteristic GC MS analysis of the extracts, to identify different species of the ocimum plant. Ocimum sanctum L. and further experiments are required for better exploitation of essential oil for its commercial purposes.

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