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EXTRACTION OF ESSENTIAL OIL FROM MURRAY EXOTICA FLOWER

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Abstract
The market value of essential oil is high due to its applications in fragrance, cosmetic industry and so. As Murray exotica flower essential oil is a heat effective chemical compound. Essential oil is a substance which absorbs the smell and taste of the raw material that has been used.
During this experimental work, Murray exotica flower essential oil was extracted using solvent extraction technique. Solvent extraction method is easy to operate as well as its maintenance cost is also low. The experimental investigation was carried out using methanol as solvent. The extraction essential oil produced was verified conducting GC-MS analysis report. Results show the presence of volatile components in the oil extracted from Murray exotica flowers.

Introduction of Murray Exotica

The local name of murray exotica plant is madhukamini. This plant is majorty found in geographical of regions India, Africa, and south Asia. The size of this plant is 3 to 4 meters from ground level and its branches are cylindrical in shape and its leaves are glabrous and glossy. The flower of this plant is white in colour & it flowers throughout the monsoon season. It is a flowering and aromatic plant.
The flower is small size and are bell shaped. Madhukamini tree grows in full well in sun light. Although, the plant can tolerate some shade, it still needs 6-8 hours of sunlight to grow well. Madhukamini grows very well in alkaline sandy, acidic and moist soil. This plant like moisture, so these plants need regular watering. Traditionally kamini has been used in traditional medicine for both a pain reliever Due to it's beautiful appearance & aroma madhukamini is used for ornamental purposes as well

Raw Materials

Flower of murray exotica plant.
Methanol has been used as a solvent in this experiment

Equipments

The following equipment's has been used in this experiment
1. Airtight container
2. Beaker
3. Glass road
4. Funnel
5. Filter paper
6. Sample bottle
7. Evaporator

8. Refrigerator

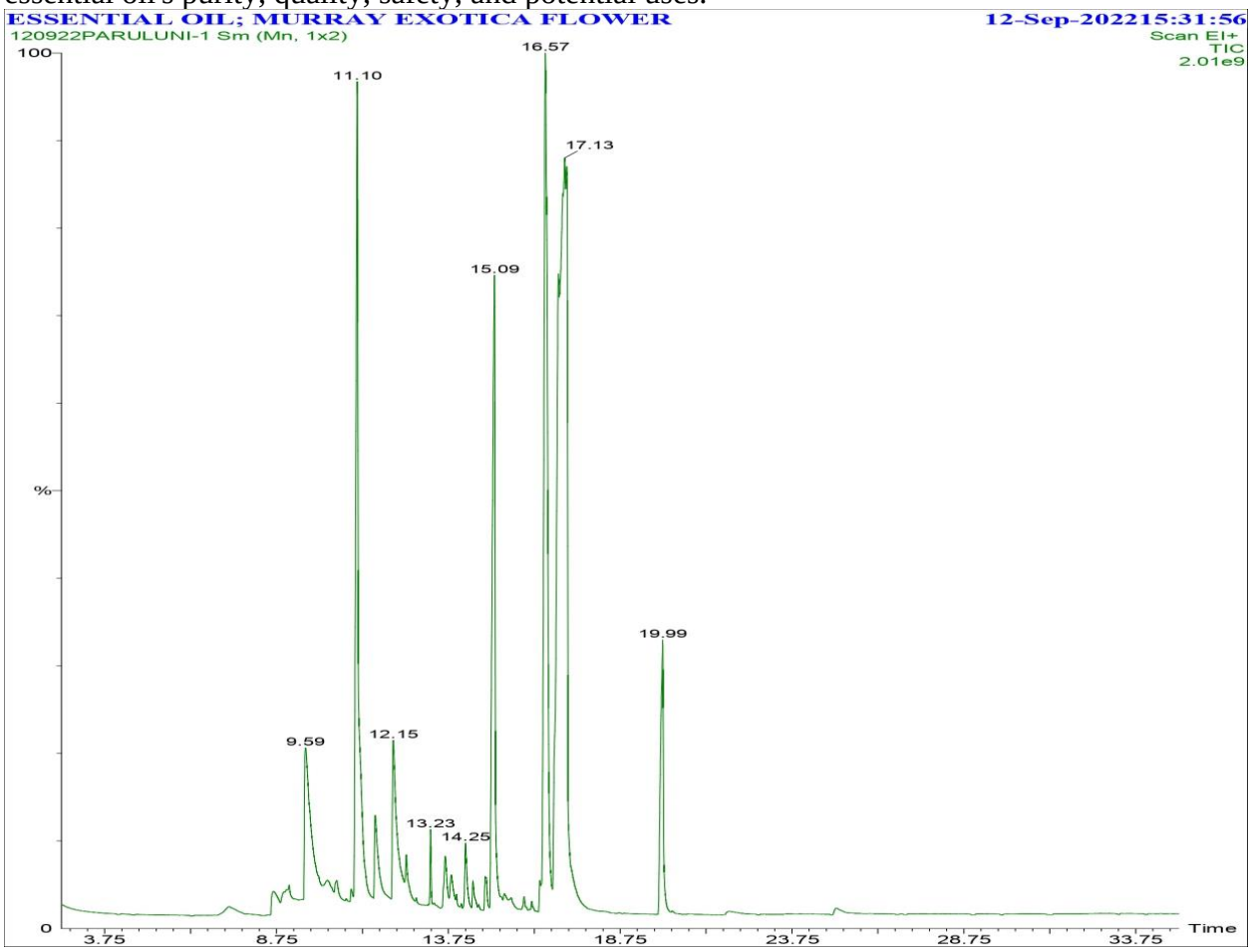
Experimental work

Solvent extraction method has used to extract essential oil for Murray exotica flower. Fresh flowers were collected from the Murray exotica plant in the morning. These flower were then systematically cleaned and cut in to small pieces this flower was immersed in to methanol in an airtight container & was then kept in a mention temperature for 24 hours. 19 After that the material in this container was taken out and it was filtered with the help of filter paper after stirring. The filtrated liquid was then collected. The extracts is then separated from methanol with the help of rotary evaporator. In this process the methanol gets evaporated and the remaining essential oil was then collected in a sample bottle

RESULT & DISSCUSSION

GAS CHOROMATOGRAPHY- MASS SPECTROMETRY

A GCMS report identifies all the different constituents within a specified essential oil, and lso tells us how much of each constituent is present (as a percentage). This information allows to make inferences about the essential oil's purity, quality, safety, and potential uses.



Graph 1

Name	RT	Area	Hei2ht	BL	Cone	Units	Area/Cone	m/z	Area %
1	7.381	68,90,544.0	1,87,89,028	MM	0.00		0.00	TIC	0.51
2	8.666	75,20,211.5	4,43,26,264	MM	0.00		0.00	TIC	0.56
3	9.116	63,46,401.5	3,41,48,208	MM	0.00		0.00	TIC	0.47
4	9.591	7,02,59,936.0	34,59,00,256	MM	0.00		0.00	TIC	5.21
5	10.502	29,91,756.8	3,21,31,696	MM	0.00		0.00	TIC	0.22
6	11.102	17,61,36,352.0	87,20,75,648	MM	0.00		0.00	TIC	13.06
7	11.622	2,33,33,814.0	18,98,92,688	MM	0.00		0.00	TIC	1.73
8	12.147	4,65,25,072.0	35,54,42,496	MM	0.00		0.00	TIC	3.45
9	12.528	26,41,502.5	6,00,03,116	MM	0.00		0.00	TIC	0.20
10	13.233	58,85,260.5	17,16,06,272	MM	0.00		0.00	TIC	0.44
11	13.658	94,96,190.0	10,70,33,400	MM	0.00		0.00	TIC	0.70
12	13.838	45,34,171.0	5,41,41,048	MM	0.00		0.00	TIC	0.34
13	14.253	1,12,39,620.0	14,60,32,576	MM	0.00		0.00	TIC	0.83
14	14.468	41,49,147.8	6,13,82,496	MM	0.00		0.00	TIC	0.31
15	14.824	59,06,268.5	7,52,19,088	MM	0.00		0.00	TIC	0.44
16	15.094	13,24,12,208.0	42,81,94,048	MM	0.00		0.00	TIC	9.82
17	16.569	23,38,39,952.0	94,27,80,544	MM	0.00		0.00	TIC	17.34
18	17.134	53,90,90,624.0	68,95,49,440	MM	0.00		0.00	TIC	39.97
19	19.986	5,96,50,264.0	62,17,63,072	MM	0.00		0.00	TIC	4.42

Table 1

Conclusion

The significance of Murray exotica flower essential oil is for physiological activity, medicinal, cosmetics and fragrances, therefore, the flower essential oil has broad prospects for application in cosmetics industries. In other hand the Murray exotica flavor is containing aromatic and pungent component which is important in the flower industries.

Solvent extraction is the most common method of extraction of essential oil and it is preferred method for all flower essential oil produced in small quantity. Solvent extraction is the most efficient method. This method most of the essential oil and hence, this method is low cost of contraction. The recovery of both aromatic and pungent component

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