

Extraction of Perfumery Oil from Lemon Grass

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ABSTRACT

This report presents an innovative proposal to extract perfumery oil from lemon grass. The method used for the extraction is Solvent Extraction method.^[1]

Lemongrass is a great addition to various cosmetic products, soaps, shampoos, body lotions, etc. Lemongrass oil's refreshing aroma makes it a valuable aromatherapeutic oil^[2]. The aim of this report is extract essential oil from lemongrass using ethyl acetate and in a relatively low cost.

Keywords: *Aromatherapeutic, Essential Oil, Ethyl Acetate, Lemon Grass, Perfumery Oil*

I. INTRODUCTION

In this project we have extracted perfumery oil using lemongrass and ethyl acetate at a relatively low cost which can be made available to the consumers at a low cost. These solvents are aimed to develop environment-friendly process for reduction of pollutants for extraction of oil. Previously, work has been done using n-hexane and using the method of steam distillation.

II. RESOURCES

1. Dried Lemongrass
2. Ethyl acetate
3. Ethyl Alcohol
4. Oil of Bergamot fruit

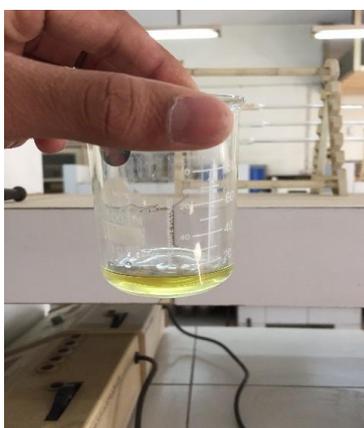
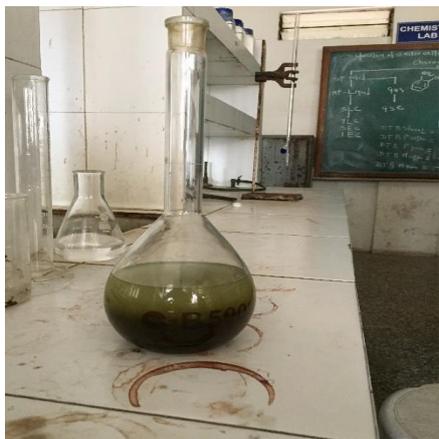
III. PROCEDURE

The method used extraction is solvent extraction method. 75gm of dry lemongrass is placed in clean 500ml flat bottom flask and 250ml of ethyl acetate solvent^[4] was poured and this system was allowed to stand for 30-32 hrs. This was done to extract the essential oil content from lemongrass and use for further extraction. After this the extract was gradually poured into 500ml beaker and 100ml of ethyl alcohol was added. The essential oil is miscible in ethanol. This mixture was then transferred to 250ml separating funnel and separated by liquid-liquid separation process. The two layers were separated because of their different densities. The lower ethanol and essential oil extract and upper ethyl acetate were collected into 250ml beaker and were placed in water bath at 75-80°C. Due to this the ethanol was removed and the natural essential oil was left behind. The weight of the oil

was determined by weighing the extract on electronic weighing balance. The aroma of oil of bergamot fruit was given by blending the oil in an oil diffuser.

Perfume formulation: 4.8ml of perfumery oil extracted from lemongrass was measured and fixatives were added to the mixture to improve the longevity of the oil. The solution was thoroughly shaken and poured into a bottle.

IV.FIGURES AND PICTURES



V.CONCLUSION

The amount of perfumery oil obtained by this method was 0.912gm of perfumery oil per 75gm of dry lemon grass. The oil produced was light ochre yellow in colour with a tinge of pungent odour. The perfumery oil was extracted using eco-friendly method and this method is economical. This perfumery oil when blended with oil of bergamot or oil of geranium can be used as an air-freshener and deodorizer. This lemongrass oil helps to relax and tone your muscles, relieve cramps, toothache, migraines and headaches since it has characteristic citrus lemony odour. This organic oil is primarily used for perfumery application and as an insect repellent.^{[3][5]}

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