

## Perfume With Natural Materials

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### Abstract

We wanted to make a perfume most people can use comfortably. We used a steam distillation method to make the perfume scent and analyzed component of oils. We made oils with nice scents. These oils' components of scents are easy to volatile.

#### 1 Introduction

Some people feel resistance to artificially synthesized scents. Therefore, I decided to create perfumes from natural materials.

#### 2 Theory and Experiment

Since limonene is in the oil spore, wouldn't it be possible to extract the aroma by removing the oil from the surface?

The essential oils of lemon and orange were extracted by steam distillation. The extracted essential oils were then analyzed for composition.

#### 3 Results

The essential oils of the solutions extracted by steam distillation had a good scent of lemon and orange, respectively, and GC-MS results showed that limonene was the most abundant component in both. In addition, citral and  $\beta$ -pinene were detected in lemon, and decanal and linalool in orange, which are not harmful to the human body at thin concentrations.

#### 4 Discussion

We did two component analyses of the oranges. (2 weeks and 1 month after extraction)

① The fact that the signal intensity of the one-month-old sample was smaller than that of the two-week-old sample suggests that the aroma component has vaporized.

② The component in the results after one month is the main aroma component of orange. → Research how to use fragrances effectively and safely based on the effects of the ingredients on the skin and body. Investigate ways to lengthen the duration of fragrance.

#### 5 Conclusion

Components of lemons and oranges' scents are easy to volatile.

→ The durations are short.

#### 6 References

- KOISO.Y. 2022. New Perfume Textbook. 1st Edition. Tokyo. Mynavi Shuppan.
- Gas Chromatograph-mass spectrometer