

Developing Methods for Extracting Cypress Essential Oil

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Abstract

Our goal was to create an original perfume with natural ingredients using a method of extracting cypress essential oil, which has low volatility.

We focused on conditions of samples to generate the most essential oil and then examined differences in volatility. Overall, the condition (Wood Shavings at Freezing temperature with misting) was the most suitable for our perfume.

1 Introduction

Perfume is made from three ingredients with different volatilities, and the least volatile ones like woody notes, are called last notes. We wanted to make perfume with natural ingredients using cypress essential oil as the last note. However, it was too difficult to extract and produced only small quantities. Therefore, we aimed to find a better method for extracting cypress essential oil.

2 Theory and Experiment

First, we conducted experiments under a total of eight different conditions changing shape, temperature, and conditions, combining these variables.

Second, we analyzed the volatility differences based on sample conditions using GC-MS. Changes caused by the differences in component content between [shavings/ground wood] and [freezing/soaking] were compared.

3 Results

The results showed that the [shavings/freezing with misting] condition yielded the highest amount of low-volatility components and contained the most aromatic components characteristic of cypress wood. Thus, this sample was considered most suitable for efficiently extracting essential oil for the base note.

4 Conclusion

From the results, we concluded that the most suitable extraction conditions for the last note were: (Wood Shavings at Freezing temperature with misting) as they produced the highest amount of suitable fragrance components.

Next, we aim to create prototype fragrances by adjusting the blending ratios of each essential oil, investigate their harmony and efficacy in greater detail, and work towards completing the perfume.

5 References

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