

# Separation and Isolation of $\alpha$ -Santalol and $\beta$ -Santalol from Sandalwood Extraction

Reveleris® iES Flash Chromatography System

## Introduction

Sandalwood oil is an essential oil obtained from the steam distillation and or alcohol extraction of chips and billets cut from the heartwood of the Sandalwood (*Santalum album*) tree. Sandalwood oil is used in perfumes, cosmetics, and pharmaceuticals.

This application note shows the benefit of ELSD detection using Reveleris® automated flash instrument for the separation and isolation of the two main non-chromophoric compounds,  $\alpha$ -Santalol and  $\beta$ -Santalol, in Sandalwood.

## Experimental

### Run Conditions

**Cartridge:** Reveleris® C18 12g (PN: 5152103)

**Flow rate:** 15 mL/min

**Equilibration:** 4.0 min

**Slope dection:** High

**ELSD threshold:** 3 mV

**UV threshold:** 0.02 AU

**UV1 wavelength:** 254 nm

**UV2 wavelength:** 220 nm

**ELSD carrier:** Iso-proponal

**Injection type:** Liquid

**Solvent A:** Hexane

**Solvent B:** Ethyl acetate

### Gradient Method

| Step | Time (min.) | %B |
|------|-------------|----|
| 1    | 0           | 0  |
| 2    | 5           | 0  |
| 3    | 15          | 7  |
| 4    | 0           | 10 |
| 5    | 10          | 10 |
| 6    | 10          | 30 |
| 7    | 2           | 30 |



## Results and Discussion

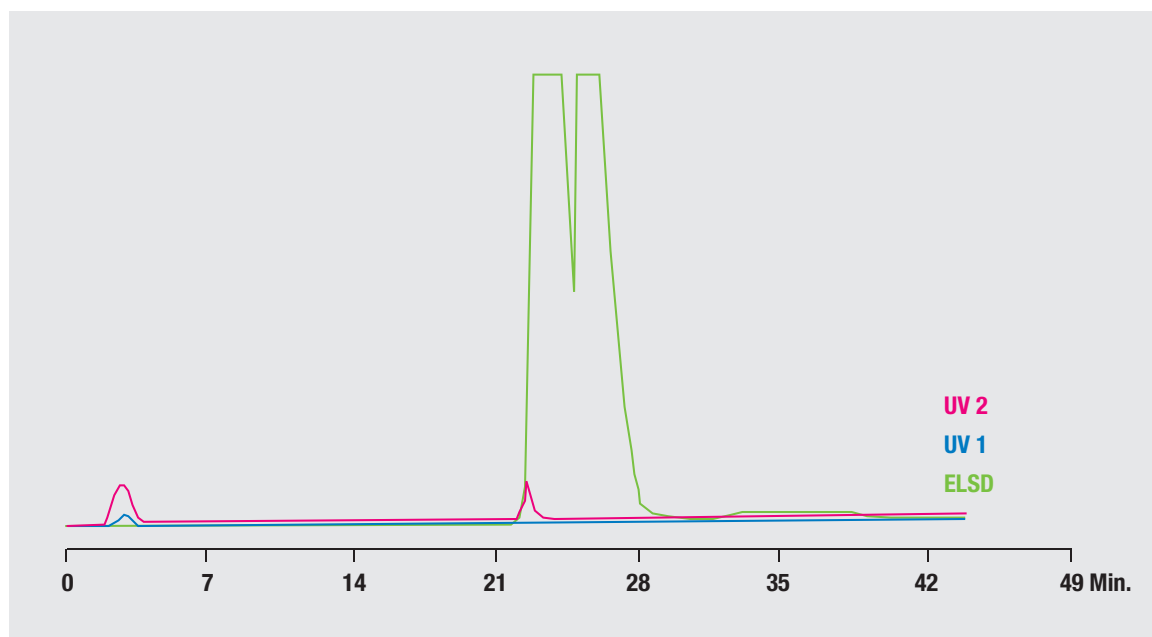


Figure 1: Separation of  $\alpha$ -Santalol and  $\beta$ -Santalol in Sandalwood by the Reveleris® flash instrument.

## Conclusion

Using the proposed procedure with the Reveleris® instrument and Reveleris® Silica cartridge the separation and isolation of  $\alpha$ -Santalol and  $\beta$ -Santalol Sandalwood extract can be easily achieved.

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