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論文 / 著書情報
Article / Book Information

題目(和文)	質量分析に基づく匂い再現を行う要素臭の探索
Title(English)	Exploration of Odor Components for Odor Reproduction Based on Mass Spectrometry
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Category(English)	Doctoral Thesis
種別(和文)	要約
Type(English)	Outline

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Thesis Outline

The outline of the structure of the thesis is described in Figure 1. Chapter 1 is an introduction followed by an explanation of general methods in chapter 2. In this thesis, there are two main studies of exploration of odor components. The first group is based on odorant samples without fixatives and the second group is the odorant samples with fixatives. The phases in the chapter are as follows:

Chapter 1. Introduces the background for the research.

Chapter 2. Explains general method for the research including samples data gathering, analyzing and feature extraction strategy.

The first study, sample without fixatives;

Chapter 3. Explains the odorant analysis using NMF and Nonnegative least squares method with different cost functions as a strategy for improving approximation accuracy.

Chapter 4. Explains the sensory evaluation to validate the computational result in the real physical sample. Sensory tests with sensor measurement were performed.

The second study, sample with fixatives;

Chapter 5. Explains the suppression of interferences that may occur in odorant samples of essential oils with the ICA method.

Chapter 6. Explains the odorant analysis using NMF with original perfume data and extracted pure perfume data and the evaluation of the result.

Chapter 7. Concludes the outcome of the study and possible future works.

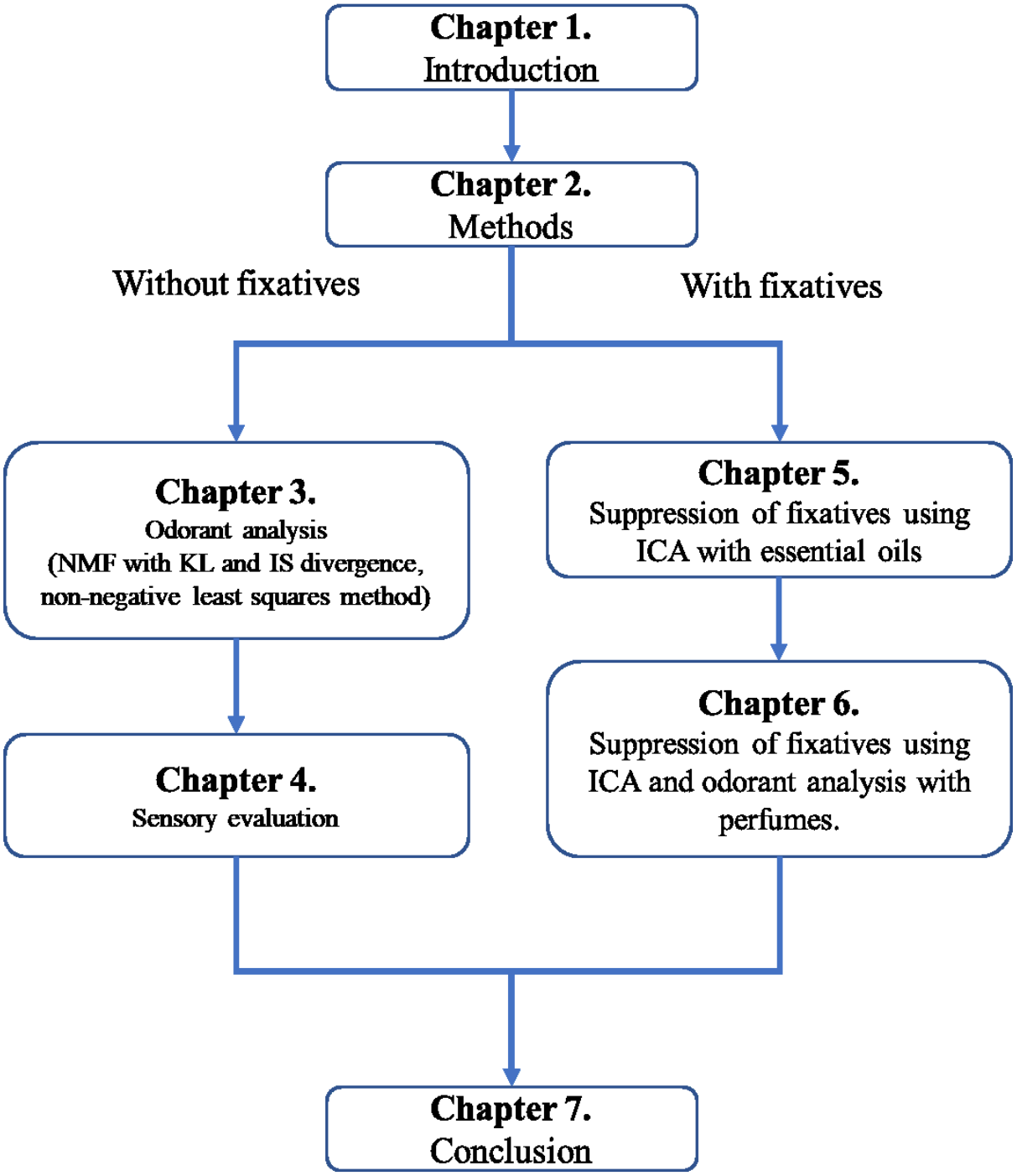

Figure 1. Outline of structure of the thesis.