

Research on Sensory Creation in Consideration of Shampoo Foam Characteristics

Background

Current situation and problems

The sound experienced when washing shampoo (shampoo sound) is expected to add value by improving the feeling of use. However, the following problems exist.

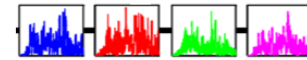
- (1) The shampoo sound is not only air conducted sound but also bone conducted sound, but no method has been established to reproduce the shampoo sound.
- (2) The control factors for creating the shampoo sound have not been identified.

The purpose of this research

Different experimental measurements, evaluation

Identification of control factors during cleaning

Identify sensory characteristics

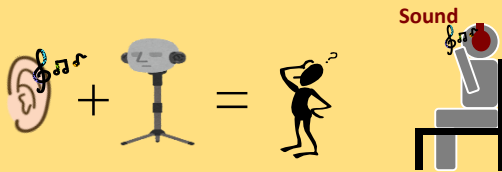


Subjective evaluation

Content

Reproduction of shampoo sound

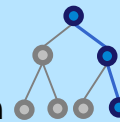
The shampoo sound consists of bone conducted sound and air conducted sound. It is necessary to understand the characteristics of the sound impression.



『Create shampoo sounds that take into account bone and air conductivity sensation』

Control factor identification

Random forest
Feature extraction



Confusion matrix
Verification experiment

Regression analysis



Construction sensory maps

Evaluation word selection

Emotional expressions word

Impression of shampoo sound

Subjective evaluation

Set evaluation scores

Sensory maps