

COLOR OF THAI ICED TEA

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1. Introduction

Thai iced tea is a famous drink among Thai and foreigners because it is nice-smelling, tasty.

The color of Thai iced tea is quite unique which is slightly orange tone. The orange color of Thai tea is brewed from the mixture of black tea, condensed milk, and sugar.

However, the color of Thai tea has variety depends on the method of brewing, proportion and amount of Thai tea mixed with condensed milk. This proportion is able to affect the final color of Thai tea. Thus, the color of Thai tea is memorized in a different way individually. The perception of Thai tea color is various due to personal experience as shown in figure 1.

Besides, the unique color of Thai tea has widely known and be named as one shade of color term in Thailand. Therefore, the aim of this study is to investigate the boundary of Thai tea color.



Fig. 1 Thai Iced Tea

2. Experiment

The experimental room was divided into 2 rooms. In the first room is namely test room. A monitor (EIZO Color Edge) 27 inches was placed in

the test room. The color stimulus will be presented on a monitor. Between test room and subject room there is a separating wall which has a small window size 5x5 cm². Another room is called subject room which was mounted with white wall paper. The illuminance of the subject room was kept constant at 300 lux. A small window at the front wall of subject room was surrounded by gray paper 25.5 x 25.5 cm. Figure 2 shows the drawing of experimental room.

The participants were able to see the result color through this aperture. The distance between subject and the wall was set at 60 cm that is giving the visual angle of the color stimulus at 2°.

100 participants with normal color vision were participated in this experiment. Mostly, participants are female with average age of 18 to 25 years old.

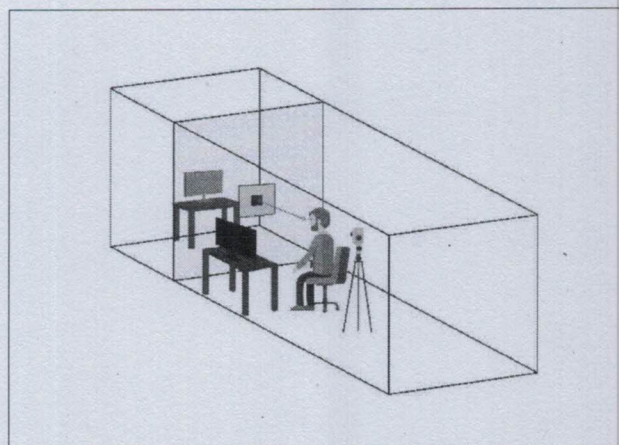


Fig. 2 Experimental Room

Task for subject: subjects were asked to identify Thai tea color by using mouse to select the color from color mixing bar on the left-hand side monitor. Each subject was asked to repeat the task for 3 times. Then, the resulted-color was measured by using Konica Minolta CS-100A. The color of Thai iced tea result is converted to CIEL*a*b.

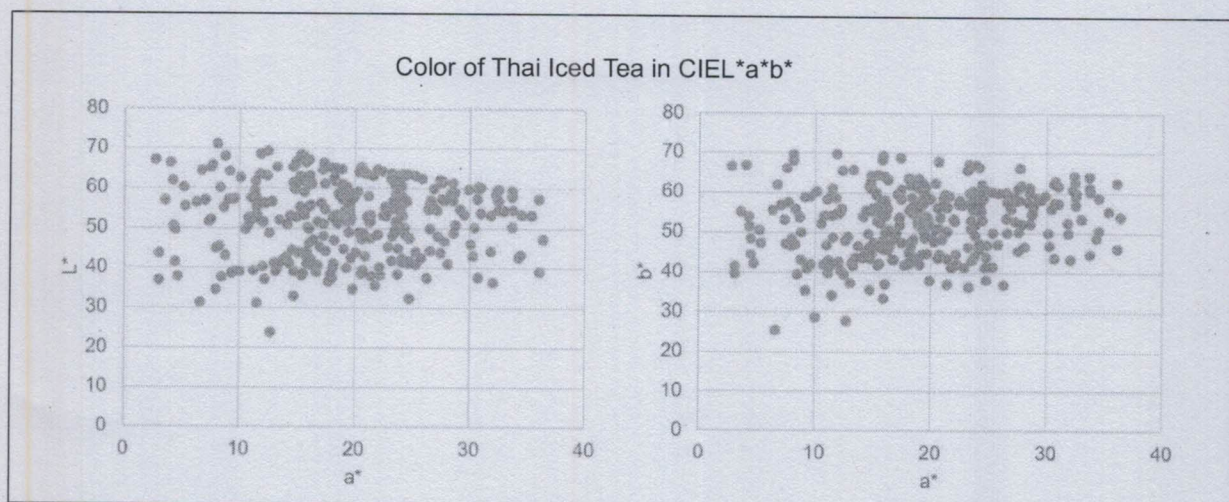


Fig. 3 Color of Thai Iced Tea in CIEL*a*b*

3. Results and Discussion

The result of mixing color for Thai Tea was showed in CIEL*a*b* color space. Figure 3 left is the color values that plotted in a^* and L^* , on the right is plotted in a^* and b^* . The result showed the boundary of Thai iced tea color was identified in the yellowish orange region. The range of L^* value started from 23.78 to 71.10, range of a^* value started from 2.76 to 36.41 and range of b^* value started from 25.41 to 69.69.

The averaged of Thai tea color was $L^* = 52.61$, $a^* = 19.36$, $b^* = 52.81$. The sample of averaged color is shown in Fig. 9 (right).

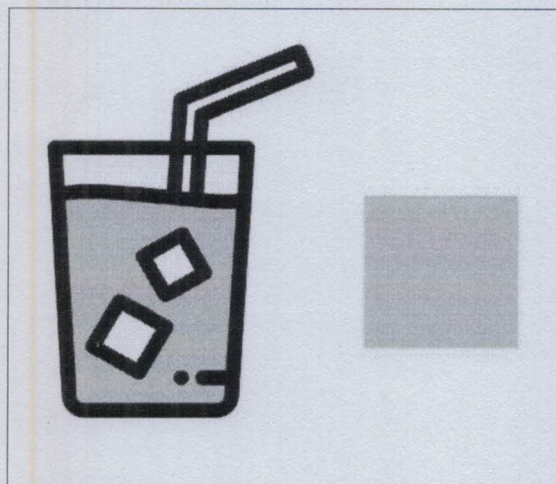


Fig. 4 Averaged Color of Thai Iced Tea

4. Conclusion

According to the inclusive result of this study revealed that the boundary of Thai iced tea color was identified widely in the orange region.

Therefore, the boundary of Thai tea color could be applied from $L^* = 23.78$ to 71.10, $a^* = 2.76$ to 36.41 and $b^* = 25.41$ to 69.69. Moreover, those range of Thai tea colors can be grouping by further experiment. At least the average color that we found in CIEL*a*b* value of Thai tea color can be applied to the product design, graphic design, advertising design etc.

Further, the result of this study will be adjusted for Thai tea product design. Then, the color will be tested in order to evaluate the suitability when the color is painted on actual product in the future.

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