香粧会誌 Vol. 5 No. 2 (1981)

(原　著)

女性顔面の皮膚表面温度分布特性について

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Character of Skin Temperature Distribution of the Facial Surface of Japanese Women

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Abstract

In these days, a difficult but most important problem for cosmetic scientist is objective and scientific substantiation of usefulness and aesthetic effects of cosmetics.

In this study, we investigated the skin temperature distribution pattern of female by means of IR thermography system. Furthermore, we examined the change of the pattern after applying massage cream or facial pack which are expected to promote the blood circulation.

The following results were obtained.

1) The temperature distribution pattern was stabilized in 20 minutes at 22°C after lying on bed quietly.
2) Regional temperature differences were of served; i.e. temperature of forehead and top of nose were high, but cheek and chin were low.
3) The temperature distributions on the face were classified into three patterns.
4) Mean skin temperature of the face went down in accordance with increasing age.
5) Change of the skin surface temperature after washing was greater in using 40°C water compared with in 20°C.
6) Massaging gradually cause the skin temperature high.
7) Facial pack made the skin temperature high, and temperature difference between forehead and cheek became little.
8) Applying the cosmetics, 30 minutes were required to recover the original skin temperature.

As described above, we were able to understand by means of IR thermography system not only the feature of skin temperature distribution on the face but also the expected effect of the beauty treatment.