

〈原著〉

# 可視光と化粧品（第I報） 角層の透明度に及ぼす乳化型化粧品の影響

檀淵 暢夫\* 木村 知史\* 鈴木 守\*

## Visible Light and Cosmetics (I): The Effects of Cream and Lotion on the Transparency of Stratum Corneum

Nobuo KASHIBUCHI\*, Satoshi KIMURA\*, Mamoru SUZUKI\*

### Abstract

In our country, it was being said from ancient time that the lucency of the skin is an important factor of beauty skin.<sup>1)</sup> Although the term lucency has been widely used in sensuous research, its scientific meaning has not been defined.

We believe that the lucency is affected by conditions of skin surface and transparency of stratum corneum. In this study, the creams and lotions were applied on to the isolated stratum corneum of rabbit's ear and a transmission of visible light through the specimen was measured spectrophotometrically as an indicator of the skin's transparency.

It was demonstrated that some commercial creams and lotions increased the transmission of the stratum corneum. Some correlations between the composition and the degree of light transmission were found.

The light transmission of stratum corneum is mainly influenced by the balance of liquid components and solid components in oil phase of product and not by the amounts of the oil phase.

As a general rule, liquid oils increase the transmission, conversely, solid components such as waxes decrease the light transmission of stratum corneum.

### Key words

1) Stratum corneum, 2) light transmission, 3) transparency, 4) Creams and lotions, 5) Oils