

〈シンポジウム〉

「香粧品と経皮吸収—現在と将来」

経皮吸収の促進と制御

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Enhancement and Control of Transdermal Absorption

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Abstract

The skin is a primary area of body contact with the environment and is the route by which many chemicals enter the body. Introduction of chemicals into the body *via* the skin occurs both through passive contact with the environment and through direct application of chemicals on the body like medicinal therapy (topical and systemic transdermal therapeutic system: TTS) or cosmetics. Generally, the stratum corneum is the main barrier limiting the passive transdermal diffusion of a lot of drugs, and this function is very important factor for the development of TTS. To overcome some of these limitation, in recent years, several approaches have been proposed including chemical (penetration enhancer *etc.*) and physical enhancing methods (iontophoresis, sonophoresis *etc.*). In this paper, we summarize the chemical enhancing method using new penetration enhancer, pirotiodecane, and the physical enhancing method for peptide and protein delivery using pulse depolarization direct current iontophoresis system or sonophoresis.

Key words: percutaneous absorption, transdermal therapeutic system (TTS), penetration enhancer, iontophoresis, sonophoresis.