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Microneedles: A Versatile Strategy for Transdermal Delivery of Biological Molecules

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Abstract

Human skin is made up of multiple layers and is designed to protect the human body. The stratum corneum (SC), specifically, is a keratinized layer of skin through which molecules heavier than 500 Da cannot penetrate. Traditional methods of transdermal drug delivery through the SC, such as hypodermic needles, are less than ideal because their size and appearance can cause fear and pain, creating hesitation, limiting self-administration, and preventing their use in

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