

Non-invasive optical method for epidermal thickness estimation (Article)

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Abstract

A non-invasive method to determine epidermal thickness from the intensity of transmitted visible light is proposed. A simple model for passing light through the epidermis layers and then measuring what is transmitted back out of the surface, is implemented by using the Montecarlo method. Simulations revealed that the transmittance is linearly dependent on the thickness of the epidermis and so demonstrate the viability of the proposed method. © 2014 Science Publication.

Author keywords

Epidermal thickness; OCT; Transmittance