Permeability of mouse skin for propylene glycol

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Spectral measurements were made using *ex vivo* mouse skin samples immersed in propylene glycol (PG). The kinetics of the collimated transmittance spectra of the samples placed in PG were recorded using a USB4000-Vis-NIR multichannel spectrometer (Ocean Optics, USA) in the spectral range 450 – 950 nm. The collimated transmittance of the skin increased with time in the studied spectral range during immersion in the PG due to the diffusion of PG and tissue water, providing optical clearing of the skin, which makes it possible to quantify the diffusion process. The diffusion coefficient of PG in the skin, the permeability of the skin for PG, and the efficiency of optical clearing of skin samples at different wavelengths were obtained.These data can be used in a wide area of ​​biology and medicine, including in solving the problem of biodegradable smart implants.

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