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Abstract:

The study of skin whitening products effectiveness has been conducted. The products contained citric acid as whitening agent, and formulated in gel bases with three different humectants, i.e. propylene glycol, sorbitol, and glycerol, respectively.

In spite of their performances, viscosity, and pH, the release of citric acid from the gel was also determined as a parameter of their effectiveness. These were performed with modified instrument of Transdermal Delivery System Apparatus (USP 23). Analysis of the data was performed by Higuchi’s formula, and then the coefficient permeability on the gel base with different humectant were calculated.

The result showed that the flux value of citric acid release and the cellophane membrane coefficient permeability of citric acid from the gels containing glycerol were the highest, followed with those containing propylene glycol and sorbitol respectively.

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