

DEVELOPMENT OF A TRANSDERMAL MEDICINE FOR WOUND HEALING

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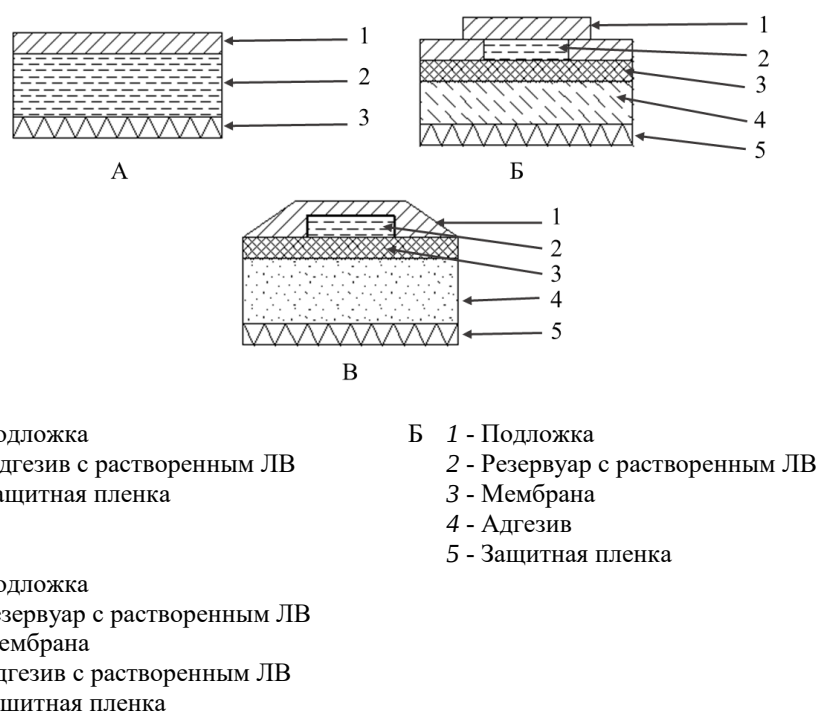
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Relevance: the relevance is due to the high prevalence of wound pathology and the lack of complex and effective means for its treatment in the domestic pharmaceutical market.

Purpose of the study: development of a transdermal dosage form of wound healing action

Materials and methods: analytical research methods and computer modeling methods were used in the work

Results: in order to reduce the development time and material costs, 8 compositions containing benzyl dimethyl[3-(myristoyl amino) as an antimicrobial component were selected using the Syntelly artificial intelligence platform for organic and medical chemistry. propyl]ammonium (miramistin), xymedon, or acecsamic acid as a reparant, as well as 1 of 5 NSAIDs: ketoprofen, ketorolac, benzydamine, nimesulide, or phenylbutazone, which are predicted to be stable. Three design options for a transdermal system have been proposed to provide controlled prolonged release. (pict.1).



Picture 1. Schemes of proposed designs of transdermal therapeutic systems with wound-healing effect: matrix (A), reservoir (B), and combined (C).

Conclusions: possible compositions and designs of a transdermal therapeutic system have been developed and theoretically substantiated.