

Creation of systems of controlled release of biologically active substances for cosmetic

V. Paientko¹, A. Matkovsky¹, L. Babenko², K. Romanenko²,
O. Yesypchuk³, O. Oranska¹, E. Skwarek⁴, O. Bakaieva⁵,
L. Golovkova¹, A.G. Grebenyuk¹

¹Chuiko Institute of Surface Chemistry, NAS of Ukraine, Kyiv, Ukraine,
e-mail: payentkovv@gmail.com

²N.G. Kholodny Institute of Botany, NAS of Ukraine, Kyiv, Ukraine,

³Naturel Medical Aesthetic, Chernivtsi, Ukraine,

⁴Maria Curie-Skłodowska University, Lublin, Poland,

⁵National Pirogov Memorial Medical University, Vinnitsya, Ukraine

In modern pharmacology and cosmetology, the solution to the problems of targeted use of drugs is associated with the creation of new forms of delivery of biologically active substances (BAS). The use of carriers for biologically active substances allows us to obtain dosage forms with improved compatibility with biological fluids, controlled time of entry into the body, high storage stability and so on. By creating composites that would provide the necessary content of BAS and their controlled release, we can reasonably hope to achieve positive results in this direction. This paper proposes the creation of composites based on clay minerals and zeolites, which provide various forms of inclusion of the active substance by optimizing the composition and improving the methods of formation. Significant hydrophilicity of clays increases the moisture content in materials and, as a consequence, allows one to increase the content of BAS.

The release of chlorophyll A and B, carotenoids, anthocyanins and vitamin C from plant raw materials and clay / zeolite / plant raw materials composite was studied by UV spectroscopy [1]. The level of safety of the obtained materials and plant raw materials was assessed using the program "Rana" [2]. All indicators were not more than 33, composites are hypoallergenic. The proposed composite materials are clay / zeolite / vegetable raw materials. Indicators of the level of safety of components and composite materials are studied. The possibility of their use in cosmetics is substantiated. The hypoallergenicity of the studied systems is confirmed. Kinetic studies of biologically active substances can be used as a factor in regulating the direction of preventive action of shampoos, masks and supplements.

References

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