



Cyclic lipopeptides as interface modulation in nano soft – Delivery

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Owing to their distinct properties, carriers of active compounds are gaining increasing interest not only in the pharmaceutical industry, but also in the food, dietary supplement, and cosmetics sectors. The concept of encapsulating active molecules within nanoparticles enables the enhancement of their activity, bioavailability, and stability, as well as targeted delivery to specific sites of action, minimizing side effects. Given that a significant proportion of studied nanoparticles are colloidal systems, surface-active compounds constitute an essential component, ensuring the stability of dispersions. For this reason, cyclic lipopeptides are particularly intriguing candidates for incorporation into carriers. As biosurfactants, they possess valuable dispersion stabilizing properties and exhibit diverse biological activities. This dual functionality makes them not only potential building blocks but also active compounds. Moreover, as they are produced via microbial fermentation processes, these compounds are fully renewable resources, aligning well with the principles of eco-technology. This review aims to summarize the current state of knowledge regarding the incorporation of cyclic lipopeptides into carriers of active compounds.

Słowa kluczowe

Delivery systems, Cyclic lipopeptides, Nano and microcarriers, Encapsulation, Soft materials

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