ТЕХНОЛОШКИ ФАКУЛТЕТ

Рад у часопису - M21a: Study of vitamin E microencapsulation and controlled release from chitosan/sodium lauryl ether sulfate microcapsules (https://doi.org/10.1016/j.carbpol.2020.116988)

Часопис: Carbohydrate Polymers

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Potential benefit of microencapsulation is its ability to deliver and protect incorporated ingredients such as vitamin E. Microcapsule wall properties can be changed by adding of coss-linking agents that are usually considered toxic for application. The microcapsules were prepared by a spray-drying technique using coacervation method, by depositing the coacervate formed in the mixture of chitosan and sodium lauryl ether sulfate to the oil/water interface. All obtained microcapsules suspensions had slightly lower mean diameter compared to the starting emulsion (6.85 ± 0.213 μm), which shows their good stability during the drying process. The choice and absence of cross-linking agents had influence on kinetics of vitamin E release. Encapsulation efficiency of microcapsules without cross-linking agent was 73.17 ± 0.64 %. This study avoided the use of aldehydes as cross-linking agents and found that chitosan/SLES complex can be used as wall material for the microencapsulation of hydrophobic active molecules in cosmetic industry.