Nirmal Shah *Editor*

Nanocarriers: Drug Delivery System

An Evidence Based Approach

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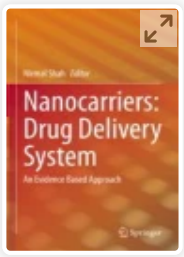

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Niosomes: A Novel Nanometric Vesicular System for Drug Delivery

Pranav Shah, Rinkal Jariwala, Swinal Kapadiya, Vidya P. Sabale, Priya Patel & Pallavi M. Chaudhari

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Abstract

Vesicular systems like niosomes, liposomes, transferosomes, pharmacosomes, and ethosomes have been employed as an all-rounder tool to upgrade the delivery of drug, since the past decade. Niosomes are submicron-sized vesicular drug delivery systems including nonionic surfactants, which are perishable, inexpensive, steadier, and relatively nontoxic in nature. There are various methods, which are meant for the preparation of niosomes. Niosomes are capable of delivering the drug in accordance with a predetermined rate and release therapeutically effective amount of drug at the targeted site. Various nonionic surfactants have been employed in the development of bilayer structure of niosomes. They have been known to

possess the merits of drug targeting in a controlled or sustained manner, long shelf life, and high stability. In recent years, the potential of niosomes, as a carrier for delivery of therapeutic agents, diagnostic agents, and biotechnology-based products like DNA and RNA, has been widely studied. This review acknowledges us regarding the techniques of formulation, characterization process, and recent utilization of niosomes in the delivery of drugs.

Keywords

Niosomes **Vesicular systems** **Drug delivery**

Drug targeting **Nonionic surfactants**

Bilayer structure

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