

Surfactants and their Recent Biological Application in the Medical and Pharmaceutical Field

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ABSTRACT

Surfactants are a strange class of resourceful amphiphilic compounds which have a spatially characteristic polar hydrophilic head and non-polar hydrophobic tail group. In biological systems the effects of surfactants on complex, particularly their effect on cell membranes which can lead to alterations in permeability. The effect of surfactants on membrane permeability explain an evident concentration-dependent biphasic action like increase in membrane permeability occurs at low surfactant concentrations, but decreases at higher concentrations of the surfactant. The surfactant is mostly used in every walk of life such as individual care products, domestic cleaners, pharmaceuticals, oil recovery, food handling, and nanotechnologies. The review article will focus on the biological properties of surfactants, mechanism of action, antimicrobial functions, gene therapy, biological systems, health, and personal care products and especially emphasize the role of surfactants in pharmaceutical product development.