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Perspectives in Nanosuspension drug delivery

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Perspectives in Nanosuspension drug delivery

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Abstract

The effectiveness of many drugs is limited due to poor oral bioavailability; the chief reason for this being poor solubility in both aqueous and organic solvents. The technology of nanosuspension has become one of the promising strategies to overcome bioavailability issues associated with poorly soluble BCS Class II and Class IV molecules. The specific features of nanosuspensions have enabled their use in various dosage forms. A number of nanosuspension based drug products have successfully reached the market. This review is intended to give an overview of nanosuspension, and highlight the various formulation techniques, nanosuspension characterization, surface modification, recent technological advances and its different applications.

Key words: Bioavailability, nanosuspension, new chemical entity, precipitation, solubility

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