

Special Issue: NCNN-2014

(National Conference on Nanoscience and Nanotechnology - 2014)

## Recent Approches of Drug Delivery System: Microemulsion

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Microemulsion is a system of water, oil and amphiphilic compounds (surfactant and cosurfactant) which is a transparent, single optically isotropic and thermodynamically stable liquid. The droplets in a microemulsion are in the range of 0.1-1.0 $\mu$ m. As pharmaceuticals drug delivery systems, microemulsion have unique properties, including clarity, high stability and ease of preparation. Microemulsions able to protect labile drug, control drug release, increase drug solubility, and reduce patient variability. It provides protection against oxidation, enzymatic hydrolysis and improves the solubilization of lipophilic drugs and hence enhances their bioavailability. Microemulsions are also attracting the interest of researchers due to their potential as drug delivery vehicles, in other food and pharmaceutical applications, and in the petrochemical industry. In addition to oral and intravenous delivery, they are amenable for sustained and targeted delivery through ophthalmic, dental, pulmonary, vaginal and topical routes. Microemulsions have great range of applications and uses such as in pharmaceuticals, agrochemicals, cutting oils, biotechnology, food, cosmetics, analytical applications, environmental detoxification etc. The main objective of this review paper is to discuss microemulsions as drug carrier system with other possible applications.