

Microencapsulation A World Wide Application

Tariq Jamshaid

SURGE Laboratories Private Limited Pakistan

Abstract:

Microencapsulation (ME) is a technique having wide range applications in different industries like pharmaceutical, agricultural, food, biotechnological, cosmetics. The major advantage of microencapsulation is to protect encapsulated active ingredient against degradation & to control its release profile as per requirement. Microencapsulation is a process by which very tiny droplets or particles of liquid or solid material are surrounded or coated with a continuous film of polymeric material yielding capsules from micron to millimeter range. The product obtained by this process is called as Microcapsules.

The encapsulation efficiency of the microparticles or microsphere or microcapsule depends upon different factors like concentration of the polymer, solubility of polymer in solvent, rate of solvent removal, solubility of organic solvent in water etc. Substances may be microencapsulated with the intention that the core material be confined within capsule walls for a specific period of time. Alternatively, core materials may be encapsulated so that the core material will be released either gradually through the capsule walls, known as controlled release or diffusion, or when external conditions trigger the capsule walls to rupture, melt, or dissolve.

Microencapsulation may be achieved by a variety of techniques like polymerization, coacervation, solvent evaporation, spray drying, air suspension, pan coating etc.

the founding editor-in-chief of the International Journal of Nanomedicine (5-year impact factor of 5.03). Prof. Webster is a fellow of AIMBE, BMES, IUSBE, and NAI. He also served as the President of SFB. He has appeared on BBC, NBC, ABC, Fox News, and other news outlets talking about medicine

Biography:

Tariq Jamshaid has more than 16 years of experience of Quality Control, Manufacturing Processes, Product Design & Development, Process Optimization, Laboratory Management System. He has strong scientific, analytical, statistical, planning, managerial and training skills. Currently, he is working as a Senior Executive Manager Production & Development in Surge Laboratories Private Limited, Pakistan.

Publication of speakers:

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2. Himanshu K. Solanki, Dipak D. Pawar, Dushyant A. Shah, Vipul D. Prajapati, Girish K. Jani, Akil M. Mulla, and Prachi M. Thakar (2013): Development of Microencapsulation Delivery System for Long-Term Preservation of Probiotics as Biotherapeutics Agent. Review Article (21 pages), Article ID 620719
3. Naveed Akhtar (2011) Pharmaceutical Microencapsulation Technology for Development of Controlled Release Drug Delivery systems
4. Sanjoy Kumar Das (2011) Microencapsulation techniques and its practices.

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