1. Record Nr. UNINA9910815066003321

Titolo	Lipids in nanotechnology / / editor, Moghis U. Ahmad
Pubbl/distr/stampa	Urbana, Illinois : , : AOCS Press, , 2012 ©2012
ISBN	0-12-804345-8 1-63067-004-9 1-61344-996-8
Descrizione fisica	1 online resource (303 p.)
Altri autori (Persone)	AhmadMoghis
Disciplina	660/.294514
Soggetti	Lipids Nanotechnology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Lipids in Nanotechnology; Copyright Page; Table of Contents; Preface; Chapter 1. Nanotechnology: Emerging Interest, Opportunities, and Challenges; Introduction; Nanotechnology in Food Applications; Nanotechnology in Cosmetics Applications; Conclusion; References; Chapter 2. Surface Active Lipids as Encapsulation Agents and Delivery Vehicles; Introduction; Partial Acylglycerols; Phospholipids; Glycolipids; Aminolipid and Lipopeptide; Phytosterol Surfactants; Antioxidant Esters; Conclusion; References Chapter 3. Milk Phospholipids: A Nanocarrier System for Delivery of Bioactive CompoundsIntroduction; Overview of Encapsulation of Bioactive Compounds; Liposomes and Nanoliposomes: Size, Structure, and Stability; Milk Phospholipids and Their Potential Applications as Delivery Systems; Conclusions; References; Chapter 4. Marine Phospholipid Liposomes; Introduction; Functional Benefits of Marine Phospholipids; Growth Suppression of Human Colon Carcinoma Caco-2 Cells; Functionality of Marine Phospholipid Liposomes; Stability of Marine Phospholipid Liposomes; Conclusion; References Chapter 5. Formulation of Lipid Micro/Nanodispersion SystemsIntroduction; Microchannel Emulsification; Formulation of Lipid Nanodispersions; Conclusion; References; Chapter 6. Self-emulsifying

Delivery Systems and Lipid Transport; Introduction; Lipid Uptake and Transport; Engineered Lipid Delivery Systems; Microemulsions (ES) and Self-emulsification; SMEDS and SEDS in Pharmaceutical Applications; SMEDS and SEDS in Food Applications; Challenges, Opportunities, and Outstanding Issues for SMEDS and SEDS; Conclusion; References
Chapter 7. Applications of Nanotechnology in Pharmaceutical DevelopmentIntroduction; Lipids in Drug Delivery; Nanotechnology in Imaging; Carbon Nanostructures in Drug Delivery; Other Nanoparticles in Drug Delivery; Nanotechnology and Safety Issues; Conclusion; References; Chapter 8. Lipid Nano-Vehicles Based on Lyotropic Liquid Crystals as Drug Delivery Vehicles; Introduction; Novel Hexagonal Mesophases; Phase Behavior; HII Mesophase Composed of GMO/Triglyceride/Water; Main Applications of HII Mesophases; Conclusion; References; Chapter 9. Lipid Nanoparticulate Drug Delivery and Nanomedicine
IntroductionLipid Nanoparticles with a Solid Matrix; Pharmaceutical Applications of Lipid Nanoparticles; Product Development and Related Issues in Lipid Nanoparticles; Liposomal Drug Delivery Carriers; Pharmaceutical Applications of Liposomal Nanomedicines; Product Development and Related Issues in Liposomal Nanomedicines; Conclusion; References; Contributors; Index

Sommario/riassunto

Nanotechnology is a rapidly expanding field which includes fundamental nanoscale phenomena and processes, nanomaterials, nanoscale devices and systems, nanomanufacturing, and benefits and risks of nanotechnology. This book serves as a valuable reference and resource for those interested in the field of nanotechnology - from basic research to engineering aspects of nanoparticles. It covers thermodynamics to engineering aspects of nanoparticles or nanoemulsions; synthesis and applications of surface active lipids to food and cosmetics; and pharmaceutical applications to nanomedicine. Lipids in N