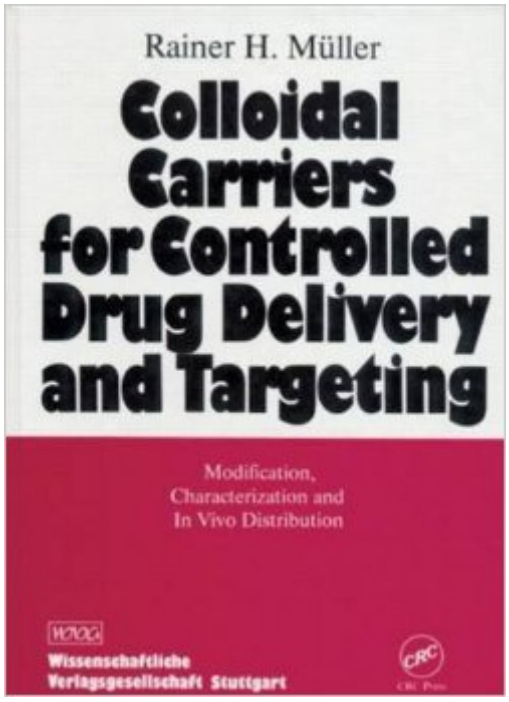
Colloidal Carriers For Controlled Drug Delivery And Targeting: Modification, Characterization, And In Vivo Distribution



Synopsis

Colloidal carriers (particles, emulsions) for intravenous administration are a promising approach to achieve controlled release and site-specific delivery of drugs. The success of the systems will depend on their ability to maintain in blood circulation (controlled release system) or to reach target cells (e.g., bone marrow, blood cells). It is well known that the surface properties of i.v. injected particles are important factors determining the organ distribution and fate in vivo. Controlled surface modification could therefore be used to direct the carriers to the desired tissues.This book deals with the physico-chemical characterization of colloidal drug delivery systems and the influence of these parameters upon in vitro cell uptake and in vivo tissue distribution. Within the book, several different methods and their effect on surface characterization are discussed, and the in vivo tissue distribution of nanoparticles different in size and surface properties (coatings with Poloxamer/Polaximine/ethoxylated nonylphenols) and the carrier properties are examined in detail. The book does not deal with single aspects, but offers a comprehensive treatment of the subject. As a result, the book contributes to a better understanding of the factors influencing the organ distribution of i.v. drug carriers and provides useful information for the rational design of new carriers. It succeeds in clearing the way for future developments and the optimization of carriers for controlled drug delivery.

Book Information

Hardcover: 379 pages
Publisher: CRC Press; 1 edition (April 15, 1991)
Language: English
ISBN-10: 0849377145
ISBN-13: 978-0849377143
Product Dimensions: 15.3 x 7.9 x 4.4 inches
Shipping Weight: 1.8 pounds
Average Customer Review: 5.0 out of 5 starsÂ Â See all reviewsÂ (1 customer review)
Best Sellers Rank: #5,582,347 in Books (See Top 100 in Books) #61 inÂ Books > Medical Books > Pharmacology > Drug Delivery Systems #2007 inÂ Books > Science & Math > Chemistry > Physical & Theoretical > Physical Chemistry #3098 inÂ Books > Textbooks > Medicine & Health Sciences > Allied Health Services > Pharmacy

Customer Reviews

This particular text covers the development and characterization of colloidal systems for drug

delivery. Research on colloidal delivery systems is getting very popular for small molecular drugs as well as biologically active macromolecules. Additionally they are of increasing interest for the controlled delivery of bioactive agents. There are several chapters on the development and characterization of colloidal systems with indepth discussion on the surface properties of colloidal systems. This text is a valuable source of information for anyone doing research in particulate drug delivery.