



Springer

1st
edition

2008, IX, 319 p.

Printed book

Hardcover

Printed book

Hardcover

ISBN 978-0-387-76920-2

\$ 179,99

Available

Discount group

Professional Books (2)

Product category

Monograph

Other renditions

Softcover

ISBN 978-1-4899-9801-9

Chemistry : Biotechnology

Matijevic, Egon (Ed.), Clarkson University Dept. Chemistry, Potsdam, NY, USA

Medical Applications of Colloids

- The first book of its type on the medical and biomedical applications of colloids, although there are some related titles on different topics
- Discusses the effects of uniform particles in drug formulations and release
- Evaluates particle transport and deposition in the human body

The important role of finely dispersed matter and surfaces in medicine is not always fully understood and appreciated. Specifically, fine particles (solid or liquid) in the size range of several nanometers to several micrometers have a tremendous effect on our lives, because they can be beneficial or detrimental to our well-being. Such particles are present in living bodies as red blood cells or cholesterol crystals in the gall bladder. They are ubiquitous in the environment, where they can cause many diseases, such as asbestosis, silicosis, and black lung disease, but they are also used in diagnostic tests, drug delivery, and numerous other applications. More recently, evidence has become available that drug formulations with active components in a finely dispersed state may significantly affect their functionality. Furthermore, with miniaturization of medical instrumentation, the size of the components is necessarily reduced to colloid or even smaller range. This volume is a collection of several chapters dealing with diverse topics of colloids and surfaces relevant to medical applications. Thus, Siiman describes the use of optical properties of uniform colloidal particles as probes in flow cytometry. Giesche focuses on the preparations and properties of exceedingly uniform silica spheres for different uses, such as in chromatography. In modified forms, silica particles with incorporated dyes are employed in diagnostics and those combined with tiny magnetic entities in drug delivery.

Order online at springer.com/booksellers**Springer Nature Customer Service Center LLC**

233 Spring Street

New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

customerservice@springernature.com

ISBN 978-0-387-76920-2 / BIC: TCB / SPRINGER NATURE: SCC12002

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**