



Special Issue Reprint

## Clay-Based Pharmaceutical Formulations and Drug Delivery Systems

www.mdpi.com/books/reprint/3321

Edited by César Viseras

ISBN 978-3-0365-0186-4 (Hardback) ISBN 978-3-0365-0187-1 (PDF)

This book includes recent advances in the use of clays in the design of medicinal products and medicinal devices. The pharmaceutical applications of nanoclays are far ranging, because of their distinct advantages: they are versatile (possess a wide range of mechanical, chemical and physical properties) and available at reasonable costs. Some special clays (mainly kaolinite, halloysite, montmorillonite, saponite, hectorite, palygorskite and sepiolite), as well as semi-synthetic (organoclays) or synthetic (double layer hydroxides) derivatives, are very useful materials for modulating drug delivery. In the last decade, several actives have been loaded onto nanoclays and similar inorganic excipients to increase solubility, improve stability, reduce toxicity, and enhance bioavailability, with a consequent increase in therapeutic response. Polymer/clay nanocomposites with synergic properties have been developed, showing improved mechanical properties with respect to the pristine polymer matrices and allowing modified release of loaded actives. Moreover, nanoclays have very recently demonstrated positive effects on the proliferation and migration of fibroblasts. The development of clay-based medicinal products and medicinal devices requires experience in the fields of both clay structure and properties and pharmaceutical technology design.



Order Your Print Copy You can order print copies at www.mdpi.com/books/reprint/3321



# MDPINBOOKS Publishing Open Access Books & Series

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



#### **Open Access**

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



#### **Author Focus**

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



#### **High Quality & Rapid Publication**

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



ᆔ

#### High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).

### Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

