

THE SCIENCE OF CLAYS

Applications in Industry, Engineering and Environment

Author:

Swapna Mukherjee, Department of Instrumentation Science, Jadavpur University, Kolkata, India.

About the Book:

This book is an attempt to provide a comprehensive and coherent description of three widely separated aspects of clays; the science of clays; the industrial uses of clays; and the role of clays in the environment. Most of the existing literature lacks such an integrated study and this work endeavours to fill that gap.

An exhaustive account of the science of clays is presented in Part I of the book, which includes the classification, origin and evolution, composition and internal structure, chemical and physical properties of clays; soil mechanics; and analytical techniques for determining clay constituents. Part II provides a comprehensive description of the application of clays and their derivatives in various industries, while Part III describes the role of clays in the environment; the pollution caused by clay minerals; and the application of clays in order to prevent environmental hazards.

A principal feature of the book is its explanation of how the structure and composition of particular clay types facilitate their specific industrial or environmental applications, thus describing the interrelationship between three widely varying aspects of clay. A number of thought-provoking questions are raised at the end of the work in order to leave readers with a better insight in this regard.

Co-Published with Springer and sold and distributed by them in all countries excepting SAARC region.

2013 HB 978-93-81891-03-2 356 pp Rs.1795/-