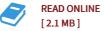


Principles of Soft-Matter Dynamics: Basic Theories, Noninvasive Methods, Mesoscopic Aspects (Hardback)

By Rainer Kimmich

Springer, Netherlands, 2012. Hardback. Condition: New. 2012 ed. Language: English. Brand new Book. Practical applications of soft-matter dynamics are of vital importance in material science, chemical engineering, biophysics and biotechnology, food processing, plastic industry, micro- and nano-system technology, and other technologies based on non-crystalline and non-glassy materials. Principles of Soft-Matter Dynamics. Basic Theories, Non-invasive Methods, Mesoscopic Aspects covers fundamental dynamic phenomena such as diffusion, relaxation, fluid dynamics, normal modes, order fluctuations, adsorption and wetting processes. It also elucidates the applications of the principles and of the methods referring to polymers, liquid crystals and other mesophases, membranes, amphiphilic systems, networks, and porous media including multiphase and multi-component materials, colloids, fine-particles, and emulsions. The book presents all formalisms, examines the basic concepts needed for applications of soft-matter science, and reviews non-invasive experimental techniques such as the multi-faceted realm of NMR methods, neutron and light quasi-elastic scattering, mechanical relaxation and dielectric broadband spectroscopy which are treated and compared on a common and consistent foundation. The standard concepts of dynamics in fluids, polymers, liquid crystals, colloids and adsorbates are comprehensively derived in a step-by-step manner. Principles and analogies common to diverse application fields are elucidated and theoretical and experimental aspects are supplemented by computational-physics...



Reviews

A top quality publication along with the font used was intriguing to read. I really could comprehended everything using this written e ebook. Its been designed in an remarkably straightforward way and it is only after i finished reading through this publication by which basically altered me, modify the way i believe.

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Very useful to all of group of people. I actually have read through and so i am certain that i will planning to study yet again once again down the road. I am just very easily can get a satisfaction of looking at a created book. -- Mark Bernier