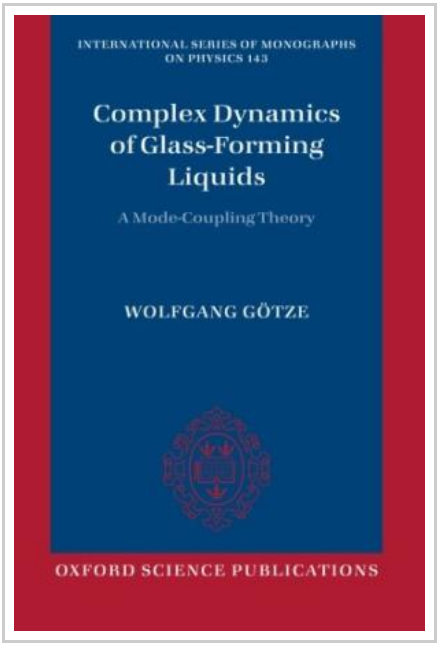

Complex Dynamics of Glass-forming Liquids: A Mode-Coupling Theory

By Wolfgang Gotze

Oxford University Press. Paperback. Book Condition: new. BRAND NEW, Complex Dynamics of Glass-forming Liquids: A Mode-Coupling Theory, Wolfgang Gotze, The book contains the only available complete presentation of the mode-coupling theory (MCT) of complex dynamics of glass-forming liquids, dense polymer melts, and colloidal suspensions. It describes in a self-contained manner the derivation of the MCT equations of motion and explains that the latter define a model for a statistical description of non-linear dynamics. It is shown that the equations of motion exhibit bifurcation singularities, which imply the evolution of dynamical scenarios different from those studied in other non-linear dynamics theories. The essence of the scenarios is explained by the asymptotic solution theory of the equations of motion. The leading-order results deal with scaling laws and the range of validity of these general laws is obtained by the derivation of the leading-correction results. Comparisons of numerical solutions of the MCT equations of motion with the analytic results of the asymptotic analysis demonstrate various facets of the MCT dynamics. Some comparisons of MCT results with data are used to show the relevance of MCT for the discussion of amorphous matter dynamics.

Reviews

This book may be really worth a read through, and a lot better than other. It is really basic but excitement inside the 50 % in the pdf. I realized this pdf from my dad and i encouraged this publication to learn.

-- ***Curtis Bartell***

The book is straightforward in study better to comprehend. It is really simplistic but unexpected situations in the fifty percent of the ebook. Its been written in an exceptionally simple way which is simply after i finished reading through this ebook in which basically altered me, affect the way i really believe.

-- ***Letha Corwin***