

Molecular Dynamics Of Glass-forming Systems

[DOWNLOAD HERE](#)

Pressure is one of the essential thermodynamic variables that due to some former experimental difficulties was known as the "forgotten variable". During the last decade many things have changed. This book deals with the effects of pressure on the dynamics of a variety of glass-forming systems. The latter include, amorphous polymers, polymer blends, glass-forming liquids, liquid crystals, polypeptides. The thermodynamics of these systems, the relation to the chemical specificity as well as their present and potential applications are discussed in detail. It is meant to serve as an advanced introductory book for scientists and graduate students that will like to start working with dynamics. Several scientific papers dealing with the effects of pressure on the dynamics have been published in the last 10 years in leading journals in the fields of Physics of glass-forming liquids and in Polymer Science (Physical Review, Macromolecules, Journal of Polymer Science, Macromolecular Chemistry and Physics, J. Chem. Phys. etc.). There is need to provide researchers and students new to the field with an overview of the knowledge that has been gained in the past 10 years in a comprehensive way. The book provides: (a) an overview of the systems exhibiting glassy behavior in relation to their molecular specificity and provides with the current understanding of the origin of glass-formation, (b) emphasizes the relation between thermodynamics and dynamic response, and (c) shows that the information on the dynamics through the pressure response can be used as a valuable input for the design of materials for particular applications. EAN/ISBN : 9783642049026 Publisher(s): Springer, Berlin Format: ePub/PDF Author(s): Floudas, George - Paluch, Marian - Grzybowski, Andrzej - Ngai, Kai

[DOWNLOAD HERE](#)

Similar manuals: