ized by a number of parameters which are experimentally accessible and which suffice to describe the behavior of the material accurately. Second: the development of a molecular theory which can be used to interpret and predict the parameters of the macroscopic treatment in terms of the (presumed known) forces between molecules. This book deals with both aspects of viscoelasticity, and does so rather well.

Supplemented by an amazing amount of experimental data, the author has given an excellent description of the phenomenological approach and the various experimental techniques, their utility, and restrictions. Of considerable value to the experimenter will be the sections dealing with interrelations between the variously defined mechanical spectra, the appraisal of possible calculational errors, and the extensive discussion of the treatment of data.

The treatment of the molecular theory is adequate but less successful than the treatment of the phenomenological theory. The physical basis of the molecular approach is discussed, but only the results of the calculations are presented. It would have been preferable to present some detail, since an appreciation of the nature of the theory is difficult to convey with only the final equations. This is, however, a relatively minor drawback.

This book can be wholeheartedly recommended to all those interested in polymer physics.

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