

but the casual reader will find more difficulty here, because the underlying physical and mathematical structure is more complex than that of continuum mechanics.

These first four chapters deal essentially with dilute solution behavior. Chapter 14 presents a "phase-space" kinetic theory that considers a system of many polymer molecules interacting with each other in solution. The results are very formal, in the sense that (by contrast to earlier chapters of the volume) no specific results are presented whereby one may draw curves of various material functions.

The final chapter presents a different, and in some sense more useable, approach. A molecular "network" theory of solids is subsequently modified to be applicable to fluids with strong intermolecular interactions, thus developing the rheology of concentrated solutions.

Volume 2 is in many respects the more difficult part of this two-volume presentation, for both the teacher and the learner. The rewards of measuring this material will be great, however, and thus will justify a significant expenditure of intellectual energy. In particular, the appreciation of the interrelationships of continuum and molecular rheology will provide the learner with a much improved perspective from which to carry on research in polymer fluid dynamics.

The authors are to be congratulated for their accomplishment in preparing this outstanding presentation of the foundations of a very complex and very important field of study.

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