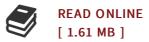# Nonlinear Phenomena in Flows of Viscoelastic Polymer Fluids (Hardback)

By A.I. Leonov, A.N. Prokunin

DOWNLOAD

Chapman and Hall, United Kingdom, 1994. Hardback. Book Condition: New. 1994 ed.. 232 x 160 mm. Language: English . Brand New Book ***** Print on Demand *****.This monograph presents theoretical and experimental studies of flows of elastic liquids. Falling into this category are particularly the melts and concentrated solutions of such flexible-chain polymers as polyethylene, polyisobutylene and polypropylene, all of which are widely used in polymer processing. These polydisperse polymers vary greatly, from batch to batch, in their mechanical properties and 20 variation in a property is believed to be good enough. l 7 All recent books - devoted to the rheology of polymers do not answer the question of which constitutive equations should be used for solving the fluid mechanic problems of polymer processing in the usual case of an appreciable nonlinear region of deformation where nonlinear effects of shear and extensional elasticity are very important. Viscoelastic constitut- ive equations cited commonly (see, e.g. Refs 5 and 6) do not describe simultaneously even the simplest cases of deformations, viz. simple shear and uniaxial extension. Moreover, some of them are internally inconsist- ent and sometimes display highly unstable behaviour in simple flows without any fundamental reasons. Even more respected molecular...

READ ONLINE
[1.61 MB]

Reviews

This composed ebook is wonderful. It really is writter in basic words rather than hard to understand. You may like the way the writer compose this pdf.
-- Ryder Nolan

This book can be well worth a go through, and a lot better than other. It is writter in simple words and phrases and not confusing. Its been printed in an exceptionally simple way in fact it is merely right after i finished reading through this pdf by which basically changed me, modify the way i think.
-- Margot Carter V