1.	Record Nr.	UNINA9910454296603321
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	Titolo	Polymer viscoelasticity [[electronic resource]] : basics, molecular theories and experiments / / Yn-Hwang Lin
	Pubbl/distr/stampa	Singapore ; ; River Edge, NJ, : World Scientific, c2003
	ISBN	1-281-93557-3
		9786611935573
		981-279-514-6
	Descrizione fisica	1 online resource (270 p.)
	Disciplina	620.19204232
	Soggetti	Polymers - Viscosity
		Viscoelasticity
		Electronic books.
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Conformation of Polymer Chains; Rubber Elasticity; Polymer Chain Dynamics; Linear Viscoelasticity; Stress and Strain; Molecular Theory of Polymer Viscoelasticity - Elastic Dumbbell Model; Molecular Theory of Polymer Viscoelasticity - The Rouse Model; Molecular Theory of Polymer Viscoelasticity - Entanglement and the Doi-Edwards (Reptation) Model; Molecular Theory of Polymer Viscoelasticity - Processes in the Linear Relaxation Modulus; Comparison of Theory and Experiment in Linear Viscoelasticity and Diffusion; Concentration Dependence of Entanglement, Onset of Entanglement, and Tube Dilation; Molecular Theory of Polymer Viscoelasticity - Processes in the Nonlinear Relaxation Modulus; Number of Entanglement Strands per Cubed Entanglement Distance.
	Sommario/riassunto	In this work, the studies of the Rouse, Doi-Edwards, and extended reptation theories are developed from a basic level and discussed in detail. Viscoelastic properties of nearly monodisperse linear flexible polymers in both the entanglement and entanglement-free regions are analyzed.