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Models; 2.5 Viscosity of Dilute Polymer Solutions; 2.6 Concentrated Polymer Solutions; 3 Electrospinning Basics; 3.1 Molecular Weight Effects; 3.1.1 The Simha-Frisch Parameter, []c; 3.1.2 Solution Entanglement Number n(e); 3.2 Electrical Charge; 3.3 Bead Formation in Electrospinning; 3.4 Introduction to Electrospinning Practice; 4 Factors Affecting Nanofiber Quality; 4.1 The Polymer Solution
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Discover new and emerging applications of polymer nanofibers alongside the basic underlying science and technology. With discussions exploring such practical applications as filters, fabrics, sensors, catalysts, scaffolding, drug delivery, and wound dressings, the book provides polymer scientists and engineers with a comprehensive, practical ""how-to"" reference. Moreover, the author offers an expert assessment of polymer nanofibers' near-term potential for commercialization. Among the highlights of coverage is the book's presentation of the science and technology of electrospinning, including