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Nota di contenuto	Intro -- POLYMER PHASE BEHAVIOR -- POLYMER PHASE BEHAVIOR -- Library of Congress Cataloging-in-Publication Data -- Contents -- Preface -- Chapter 1: Application of Lattice Cluster Theory to the Calculation of Miscibility and Interfacial Behavior of Hyperbranched Polymer Containing Systems -- Abstract -- Introduction -- Properties and Applications of Hyperbranched Polymers -- Application in Medicine -- Application in Chemistry -- Application in Energy Technique -- Thermodynamics of Hyperbranched Polymers -- Role of Branching -- Thermodynamic Model - Lattice Cluster Theory -- Thermodynamic Model - Wertheim Theory -- Phase Equilibria Calculation - Examples -- Hyperbranched Polymer + Solvent -- Polymer Blends -- Thermodynamics of Interfacial Properties -- Interfacial Properties - Calculation Examples -- Conclusion -- Acknowledgments -- Reference -- Chapter 2: Raman Study of the Pressure and Temperature Induced Transformations in Crystalline Polymers of C60 -- Abstract -- 1. Introduction -- 2. Research Method and Experimental Technique -- 3. Raman Spectra of the 2D-T Polymer and Pressure Induced Phase Transitions -- 4. Raman Spectra of the 2D-R Polymer and Pressure Induced Phase Transitions -- 5. Photo- and Pressure-Induced

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Sommario/riassunto

This book examines the phase behavior of polymers. The authors present topical research in this field. Topics discussed include the phase behavior of PVP as compared with that of poly(N-vinylcaprolactam); the applicability of lattice cluster theory to the calculation of miscibility; Raman study of the pressure and temperature induced transformations in crystalline polymers of C60; polymer phase behavior in nanocomposites; and, phase inverting polymer systems in drug delivery medicine and the correlation between stereochemistry and phase behavior.