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2.8 Micelle Dimensions: Comparison Between Experiment and Theory2.9 Interaction between Micelles; 2.10 Dynamics of Micellization; 2.11 Dynamic Modes; 2.12 Specific Types of Micelles; 2.12.1 Micelles from Telechelics; 2.12.2 Micelles from ABC Triblocks; 2.12.3 Micelles from Rod-Coil Copolymers; 2.12.4 Cross-linked Micelles; 2.12.5 Janus Micelles; 2.12.6 Nonspherical Micelles; 2.12.7 Micelles Formed due to Specific Interactions; 2.13 Micellization in Mixed Solvents; 2.14 Mixed Micelles; 2.15 Block Copolymer/Surfactant Complexes; 2.16 Complex Morphologies; 2.17 Vesicles
2.18 Crystallization in MicellesReferences; 3. Concentrated Solutions; 3.1 Understanding Phase Diagrams; 3.2 Phase Behaviour of PEO-containing Block Copolymers; 3.3 Gelation; 3.3.1 Rheology; 3.3.2 Structure - Packing of Micelles; 3.3.3 Thermodynamics of Gelation and Micellization in Concentrated Solution; 3.3.4 Effect of Added Homopolymer, Salt or Surfactant; 3.3.5 Influence of Architecture; 3.4 Order-Disorder Phase Transition; 3.5 Order-Order Phase Transitions; 3.5.1 Structural Aspects; 3.5.2 Ordering Kinetics; 3.6 Domain Spacing Scaling, and Solvent Distribution Profiles
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4.1.6 Micellization of Block Copolymers Containing Grafted Polyelectrolytes

Sommario/riassunto

This unique text discusses the solution self-assembly of block copolymers and covers all aspects from basic physical chemistry to applications in soft nanotechnology. Recent advances have enabled the preparation of new materials with novel self-assembling structures, functionality and responsiveness and there have also been concomitant advances in theory and modelling.The present text covers the principles of self-assembly in both dilute and concentrated solution, for example micellization and mesophase formation, etc., in chapters 2 and 3 respectively. Chapter 4 covers polyelectrolyte