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Nota di contenuto	Cover; Contents; Preface; 1. Introduction; References; 2. Neutral Block Copolymers in Dilute Solution; 2.1 Introduction; 2.2 Techniques for Studying Micellization; 2.2.1 Cryo-TEM; 2.2.2 Differential Scanning Calorimetry; 2.2.3 Dynamic Light Scattering; 2.2.4 Ellipsometry; 2.2.5 Fluorescence Probe Experiments; 2.2.6 Nuclear Magnetic Resonance; 2.2.7 Rheology; 2.2.8 Scanning Probe Microscopy; 2.2.9 Small-angle X-ray and Neutron Scattering; 2.2.10 Static Light Scattering; 2.2.11 Surface Pressure-Area Isotherms; 2.2.12 Surface Tensiometry; 2.2.13 Viscometry; 2.2.14 X-ray and Neutron Reflectivity 2.3 Micellization in PEO-based Block Copolymers 2.4 Micellization in Styrenic Block Copolymers; 2.5 Determination of cmc; 2.6 Thermodynamics of Micellization; 2.6.1 Chain Length Dependence of Micellization; 2.6.2 Effect of Architecture; 2.6.3 Effect of Solvents and Salts on Micellization; 2.7 Micellization and Micelle Dimensions: Theory and Simulation; 2.7.1 Scaling Models; 2.7.2 The Brush Model; 2.7.3 The Self-consistent Mean Field Theory; 2.7.4 The Model of Nagarajan and Ganesh; 2.7.5 Computer Simulations; 2.7.6 Theory: ABC Triblock Micelles 2.8 Micelle Dimensions: Comparison Between Experiment and Theory 2.9 Interaction between Micelles; 2.10 Dynamics of Micellization; 2.11 Dynamic Modes; 2.12 Specific Types of Micelles; 2.12.1 Micelles from

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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
