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Thermodynamics of Micellization; 2.3.1 Kinetic Aspects
2.3.2 Equilibrium Aspects: Thermodynamics of Micellization2.3.3 Phase Separation Model; 2.3.4 Mass Action Model; 2.3.5 Enthalpy and Entropy of Micellization; 2.3.6 Driving Force for Micelle Formation; 2.3.7 Micellization in Other Polar Solvents; 2.3.8 Micellization in Non-Polar Solvents; 2.4 Micellization in Surfactant Mixtures (Mixed Micelles); 2.4.1 Surfactant Mixtures with no Net Interaction; 2.4.2 Surfactant Mixtures with a Net Interaction; 2.5 Surfactant-Polymer Interaction; 2.5.1 Factors Influencing the Association Between Surfactant and Polymer; 2.5.2 Interaction Models
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3.3.5 Reversed Structures3.4 Experimental Studies of the Phase Behaviour of Surfactants; 3.5 Phase Diagrams of Ionic Surfactants; 3.6 Phase Diagrams of Nonionic Surfactants; References; 4 Adsorption of Surfactants at the Air/Liquid and Liquid/Liquid Interfaces; 4.1 Introduction; 4.2 Adsorption of Surfactants; 4.2.1 Gibbs Adsorption Isotherm; 4.2.2 Equation of State Approach; 4.3 Interfacial Tension Measurements; 4.3.1 Wilhelmy Plate Method; 4.3.2 Pendent Drop Method; 4.3.3 Du Nouy's Ring Method; 4.3.4 Drop Volume (Weight) Method; 4.3.5 Spinning Drop Method; References
5 Adsorption of Surfactants and Polymeric Surfactants at the Solid/Liquid Interface

Sommario/riassunto

While currently available titles either focus on the basics or on very specific subtopics, this text meets the need for a comprehensive survey of surfactants and their properties, with a strong emphasis on applications and their correlation to the fundamentals.The author covers their classification, physical properties, phase behavior, adsorption, effects - such as wetting, spreading and adhesion - as well as industrial applications in personal care and cosmetics, pharmaceuticals, agrochemicals and food products.Professor Tadros is a well-known expert on the topic of surfactants, with