

1. Record Nr.	UNINA9910960649503321
Autore	Goodwin James W (James William)
Titolo	Colloids and interfaces with surfactants and polymers // Jim Goodwin
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, 2009
ISBN	9786612259418 9781282259416 1282259415 9780470518809 0470518804 9780470748978 0470748974
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (391 p.)
Disciplina	541.345 541/.345
Soggetti	Colloids Surface active agents Surface chemistry Polymers
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Colloids and Interfaces with Surfactants and Polymers; Contents; Preface to the Second Edition; Preface to the First Edition; 1 The Nature of Colloids; 1.1 Introduction; 1.2 Colloids in Action; 1.3 Concentrated Colloidal Dispersions; 1.4 Interfaces; 1.5 Surfactants; 1.6 Solution Polymers; 1.7 The World of Nanoparticles; 1.8 Preparation of Nanoparticles; 1.9 Nanocomposites; 1.10 Janus Particles; 1.11 Summary; 2 Macromolecules and Surfactants; 2.1 Introduction; 2.2 Macromolecular Definitions; 2.3 Conformation in Dilute Solutions; 2.4 The Flory-Huggins Theory of Polymer Solutions 2.5 Polymer Solution Phase Behaviour2.6 Polymers at Surfaces; 2.7 Polymer Characterization; 2.8 Biopolymers; 2.9 Surfactants in Solution; 3 Interactions Between Colloidal Particles; 3.1 Introduction; 3.2 Intermolecular Attraction; 3.3 Notes on Complex Number Manipulation;

3.4 Dispersion Forces Between Particles; 3.5 Retarded Dispersion Forces; 3.6 The General or Lifshitz Theory of Dispersion Forces Between Particles; 3.7 Summary and Calculation Guide; 3.8 Calculation Strategy; 3.9 The Depletion Interaction; 4 Forces of Repulsion; 4.1 Introduction; 4.2 Electrostatic Interactions 4.3 The Origins of Surface Charge 4.4 The Interaction Between Diffuse Double Layers; 4.5 The Interaction Between Two Spheres; 4.6 The Effect of Particle Concentration; 4.7 Steric Interactions; 4.8 Calculation Strategy; 5 The Stability of Dispersions; 5.1 Introduction; 5.2 The Stability of Charge-Stabilized Colloids - The DLVO Theory; 5.3 Mechanisms of Aggregation; 5.4 Hetero-Coagulation and Hetero-Flocculation; 5.5 The Rate of Coagulation; 5.6 Aggregation in Flowing Dispersions; 6 The Wetting of Surfaces by Liquids; 6.1 Introduction; 6.2 The Contact Angle 6.3 Methods for the Measurement of Contact Angle 6.4 Contact Angle Hysteresis; 6.5 Spreading; 6.6 Curved Surfaces; 6.7 Capillarity; 6.8 Temperature Effects; 6.9 Dynamic Contact Angles; 7 Emulsions and Microemulsions; 7.1 Introduction; 7.2 Emulsification; 7.3 Stability of Emulsions; 7.4 Microemulsions; 8 Characterization of Colloidal Particles; 8.1 Introduction; 8.2 Particle Size; 8.3 Microscopy; 8.4 Zonal Methods; 8.5 Scattering Methods; 8.6 Analysis of Scattered Radiation; 8.7 Neutron Reflection; 8.8 Dynamic Light Scattering; 8.9 Characterization of the Electrical Properties of Particles 8.10 Viscosities of Dilute Dispersions 8.11 Sedimentation of Dispersions; 9 Concentrated Dispersions; 9.1 Introduction; 9.2 The Structure of Concentrated Dispersions; 9.3 Rheology; 9.4 Linear Viscoelasticity of Colloidal Dispersions; 9.5 Phenomenology; 9.6 Sedimentation in Concentrated Dispersions; Index; Color Plate

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## Sommario/riassunto

From blood to milk, pumice to gelatine, most scientists interact with colloids on a daily basis without any real knowledge of their nature. Building on the success of the first edition, *Colloids and Interfaces with Surfactants and Polymers Second Edition* is a user-friendly, non-technical introduction to colloids and interfaces. Includes: Many practical examples of colloid and interface science An enhanced section on fluorescence microscopy, a widely used technique in biological systems for the optical imaging of cellular structures A new section on phenomena

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