Record Nr. UNINA9910145616503321 Colloid science [[electronic resource]]: principles, methods and **Titolo** applications / / edited by Terence Cosgrove Pubbl/distr/stampa Oxford, UK;; Ames, Iowa,: Blackwell Pub., 2010 **ISBN** 1-4443-2020-3 1-282-54817-4 1-281-21483-3 9786611214838 9786612548178 0-470-76152-0 1-4443-0539-5 1-4051-6838-2 Edizione [2nd ed.] 1 online resource (399 p.) Descrizione fisica Altri autori (Persone) CosgroveT (Terence) Disciplina 541.345 541/.345 Soggetti Colloids 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 Colloid Science Principles, methods and applications; Contents; Preface; Introduction; Acknowledgements; List of Contributors; 1 An Introduction to Colloids; 1.1 Introduction; 1.2 Basic Definitions; 1.2.1 Concentration; 1.2.2 Interfacial Area; 1.2.3 Effective Concentrations; 1.2.4 Average Separation; 1.3 Stability; 1.3.1 Quiescent Systems; 1.3.2 Sedimentation or Creaming: 1.3.3 Shearing Flows: 1.3.4 Other Forms of Instability: 1.4 Colloid Frontiers: References: 2 Charge in Colloidal Systems; 2.1 Introduction; 2.2 The Origin of Surface Charge; 2.2.1 Ionisation of Surface Groups 2.2.2 Ion Adsorption 2.2.3 Dissolution of Ionic Solids; 2.2.4 Isomorphous Substitution; 2.2.5 Potential Determining Ions; 2.3 The Electrochemical Double Layer; 2.3.1 The Stern-Gouy-Chapman (SGC) Model of the Double Layer; 2.3.2 The Double Layer at the Hg/Electrolyte Interface; 2.3.3 Specific Adsorption; 2.3.4 Interparticle

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Sommario/riassunto

Colloidal systems are important across a range of industries, such as the food, pharmaceutical, agrochemical, cosmetics, polymer, paint and oil industries, and form the basis of a wide range of products (eg cosmetics & toiletries, processed foodstuffs and photographic film). A detailed understanding of their formation, control and application is required in those industries, yet many new graduate or postgraduate chemists or chemical engineers have little or no direct experience of colloids. Based on lectures given at the highly successful Bristol Colloid Centre Spring School, Colloid Scie