1. Record Nr. UNINA9910814557103321

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Titolo	Introduction to applied colloid and surface chemistry / / Georgios M. Kontogeorgis and Søren Kiil
Pubbl/distr/stampa	Chichester, UK ; ; Hoboken, NJ : , : John Wiley & Sons, , 2016
ISBN	1-118-88121-4 1-118-88120-6
Descrizione fisica	1 online resource (674 p.)
Disciplina	541/.33
Soggetti	Surface chemistry 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	Title Page; Table of Contents; Preface; References; Useful Constants; Symbols and Some Basic Abbreviations; About the Companion Web Site; 1 Introduction to Colloid and Surface Chemistry; 1.1 What are the colloids and interfaces? Why are they important? Why do we study them together?; 1.2 Applications; 1.3 Three ways of classifying the colloids; 1.4 How to prepare colloid systems; 1.5 Key properties of colloids; 1.6 Concluding remarks; Appendix 1.1; Problems; References; 2 Intermolecular and Interparticle Forces 2.1 Introduction - Why and which forces are of importance in colloid and surface chemistry?2.2 Two important long-range forces between molecules; 2.3 The van der Waals forces; 2.4 Concluding remarks; Appendix 2.1 A note on the uniqueness of the water molecule and some of the recent debates on water structure and peculiar properties; References for the Appendix 2.1; Problems; References; 3 Surface and Interfacial Tensions - Principles and Estimation Methods; 3.1 Introduction; 3.2 Concept of surface tension - applications; 3.3 Interfacial tensions, work of adhesion and spreading 4.4 Kelvin equation for the vapour pressure, P, of a droplet (curved surface) over the "ordinary" vapour pressure Psat for a flat surface4.5 The Gibbs adsorption equation; 4.6 Applications of the Gibbs equation (adsorption, monolayers, molecular weight of proteins); 4.7 Monolayers; 4.8 Conclusions; Appendix 4.1 Derivation of the Young-

Laplace equation; Appendix 4.2 Derivation of the Kelvin equation; Appendix 4.3 Derivation of the Gibbs adsorption equation; Problems; References; 5 Surfactants and Self-assembly. Detergents and Cleaning 5.1 Introduction to surfactants - basic properties, self-assembly and critical packing parameter (CPP)5.2 Micelles and critical micelle concentration (CMC); 5.3 Micellization - theories and key parameters; 5.4 Surfactants and cleaning (detergency); 5.5 Other applications of surfactants; 5.6 Concluding remarks; Appendix 5.1 Useful relationships from geometry; Appendix 5.2 The Hydrophilic-Lipophilic Balance (HLB); Problems; References; 6 Wetting and Adhesion; 6.1 Introduction; 6.2 Wetting and adhesion via the Zisman plot and theories for interfacial tensions; 6.3 Adhesion theories
6.4 Practical adhesion: forces, work of adhesion, problems and protection