Record Nr. UNINA9910142554803321 Environmental colloids and particles [[electronic resource]]: behaviour, **Titolo** separation and characterisation / / edited by Kevin J. Wilkinson, Jamie R. Lead Chichester, England; ; Hoboken, NJ, : John Wiley & Sons Ltd, 2007 Pubbl/distr/stampa **ISBN** 1-280-73952-5 9786610739523 0-470-02433-X 0-470-02453-4 Descrizione fisica 1 online resource (707 p.) IUPAC series on analytical and physical chemistry of environmental Collana systems;; v. 10 Altri autori (Persone) WilkinsonKevin J LeadJamie R Disciplina 541.345 541/.345 577.14 Soggetti Colloids Water chemistry Nanoparticles - Environmental aspects Electronic books. 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 Environmental colloids and particles: current knowledge and future developments -- Colloidal properties of submicron particles in natural waters -- Colloid-trace element interactions in aquatic systems --Ultrafiltration and its application to sampling and characterization of aquatic colloids -- Characterization of aquatic colloids and macromolecules by field-flow fractionation -- Modern electrophoretic techniques for the characterization of natural organic matter --Electrophoresis of soft colloids: basic principles and applications --Strategies and advances in the characterisation of environmental

colloids by electron microscopy -- Force microscopy and force

measurements of environmental colloids -- Laser scanning microscopy for microbial flocs and particles -- Study of environmental systems by

means of fluorescence correlation spectroscopy -- Laser-induced breakdown detection -- Probing environmental colloids and particles with x-rays.

Sommario/riassunto

This text presents the current knowledge of environmental colloids and includes reviews of the current understanding of structure, role and behaviour of environmental colloids and particles, whilst focussing directly on aquatic systems and soils. In addition, there is substantial critical assessment of the techniques employed for the sampling, size fractionation and characterisation of colloids and particles. Chemical, physical and biological processes and interactions involving colloids are described, and particular attention is paid to quantitative approaches that take account of particle he