Record Nr. UNINA9911020324503321 **Titolo** Environmental colloids and particles: behaviour, separation and characterisation / / edited by Kevin J. Wilkinson, Jamie R. Lead Pubbl/distr/stampa Chichester, England;; Hoboken, NJ,: John Wiley & Sons Ltd, 2007 **ISBN** 9786610739523 9781280739521 1280739525 9780470024331 047002433X 9780470024539 0470024534 Descrizione fisica 1 online resource (707 p.) Collana IUPAC series on analytical and physical chemistry of environmental systems;; v. 10 WilkinsonKevin J Altri autori (Persone) LeadJamie R Disciplina 541/.345 Soggetti Colloids Water chemistry Nanoparticles - Environmental aspects Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Environmental colloids and particles: current knowledge and future Nota di contenuto 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

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

Sommario/riassunto

breakdown detection -- Probing environmental colloids and particles with x-rays.

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