1. Record Nr. UNISA996207979303316

Titolo	Advances in X-ray tomography for geomaterials [[electronic resource] /] / edited by Jacques Desrues, Gioacchino Viggiani, Pierre Besuelle
Pubbl/distr/stampa	London ; ; Newport Beach, CA, : ISTE, 2006
ISBN	1-280-84778-6 9786610847785 0-470-61218-5 0-470-39484-6 1-84704-610-X
Descrizione fisica	1 online resource (454 p.)
Collana	ISTE ; ; v.118
Altri autori (Persone)	DesruesJ (Jacques) ViggianiGioacchino BesuellePierre
Disciplina	624.1/51 624.151
Soggetti	Soil mechanics - Research - Data processing Tomography Concrete - Analysis Rocks - Analysis Building materials - Testing
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	Advances in X-ray Tomography for Geomaterials; Contents; Foreword; Keynote lectures; Micro-Characterization of Shearing in Granular Materials Using Computed Tomography; X-ray Micro CT for Studying Strain Localization in Clay Rocks under Triaxial Compression; Investigation of Engineering Properties of Man-made Composite Geo-materials with Micro-focus X-ray CT; X-ray Tomography as a Tool for Micromechanical Investigations of Cement and Mortar; X-ray Computed Tomography for Geotechnical Engineering; Methods and techniques Numerically enhanced Microtomographic Imaging Method Using a Novel Ring Artefact FilterSynchrotron X-Ray microtomography: a Hig Resolution, Fast and Quantitative Tool for Rock Characterization;

Applications of X-Ray Computed Tomography (CT) in Engineering Geology; Accurate Three-dimensional Measurements of Features in Geological Materials from X-ray Computed Tomography Data; New submicro- and micro-CT set-up for NDT at the UGCT facility of the Ghent University (Belgium); Combination of Dual Energy Microfocus Computed Tomography and Petrography for Objective 3D Reservoir Characterization
Optimising X-ray Computer Tomography Images with a CT-simulatorOctopus 8: A High Perfomrance Tomographic Reconstruction Package for X-ray Tube and Synchroton moci-CT; Fracture and localized deformation; Visualization of Failure Pattern Specimens Containing Surface Crack Using X-ray Computerized Tomography; Experimental Study of Compaction Bands in Diatomaceous Porous Rock; X-ray imaging of compactant strain localization in sandstone; Studies of Mechanisms Associated with Sand Production Using X Ray CT Scan
The Application of X-ray Computed Tomography for Characterization of Surface Crack Networks in Bentonite-Sand MixturesInvestigation of Crack Behavior on Cover Soils at Landfill using X-ray CT; Characterisation of Hydraulic Fractures in Limestones Using X-ray Microtomography; Characterization of Variable Aperture Rock Fractures Using X-ray Computer Tomography; Microscopic Analysis of Dynamic Loading-induced Fractures by Using Micro CT; Micro structure; Measuring Local Strains in Sandstones under Stress with Micro-computed Tomography
Visualization of Grain Motion inside a Triaxial Specimen by Micro X-ray CT at SPring-8Quantifying Consolidation and Reordering in Natural Granular Media from Computed Tomography Images; Grain Partitioning and its Applications; Development of a Three-dimensional Fabric Analysis Method using Scanning Lines and its Applications for X-ray CT Image of Geomaterials; Flow and diffusion; Study on Water Flow in Rock by Means of the Tracer-aided X-rays CT; X-Ray CT Observation and Near-Infrared Spectroscopic Measurement of Bentonite-Quartz Mixtures
Accuracy of the Two Common Semi-Analytical Equations in Predicting Asphalt Permeability

Sommario/riassunto

This book brings together a total of 48 contributions (including 5 keynote papers) which were presented at the 2nd International Workshop on the Application of X-ray CT for Geomaterials (GeoX 2006) held in Aussois, France, on 4-7 October, 2006. The contributions cover a wide range of topics, from fundamental characterization of material behavior to applications in geotechnical and geoenvironmental engineering. Recent advances of X-ray technology, hardware and software are also discussed. As such, this will be valuable reading for anyone interested in the application of X-ray CT to geomateria