Record Nr. UNINA9910437903803321 Multiphysical testing of soils and shales / / Lyesse Laloui and Alessio **Titolo** Ferrari (eds.) Pubbl/distr/stampa Berlin; ; Heidelberg, : Springer, 2012, c2013 **ISBN** 1-283-91124-8 3-642-32492-4 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (330 p.) Springer series in geomechanics and geoengineering Collana Altri autori (Persone) LalouiLyesse FerrariAlessio Disciplina 631.416 Soils - Testing Soggetti Shale - Testing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto From the Contents: Theme lectures -- Testing in variably saturated conditions -- Testing in non-isothermal conditions -- Micro-scale investigations and image analysis techniques -- Compressibility, strength and time-dependent investigations -- Experimental analyses of shales behaviour. Significant advancements in the experimental analysis of soils and Sommario/riassunto shales have been achieved during the last few decades. Outstanding progress in the field has led to the theoretical development of geomechanical theories and important engineering applications. This book provides the reader with an overview of recent advances in a variety of advanced experimental techniques and results for the analysis of the behaviour of geomaterials under multiphysical testing conditions. Modern trends in experimental geomechanics for soils and shales are discussed, including testing materials in variably saturated conditions, non-isothermal experiments, micro-scale investigations and image analysis techniques. Six theme papers from leading researchers in experimental geomechanics are also included. This book is intended for postgraduate students, researchers and practitioners in fields where multiphysical testing of soils and shales plays a

fundamental role, such as unsaturated soil and rock mechanics,

petroleum engineering, nuclear waste storage engineering, unconventional energy resources and CO2 geological sequestration.