Record Nr. UNINA9910299597603321 Autore Ostadhassan Mehdi Titolo Fine Scale Characterization of Shale Reservoirs [[electronic resource]]: Methods and Challenges / / by Mehdi Ostadhassan, Kouqi Liu, Chunxiao Li, Sevedalireza Khatibi Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 3-319-76087-4 **ISBN** Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (99 pages) Collana SpringerBriefs in Petroleum Geoscience & Engineering, , 2509-3126 Disciplina 553.285 Soggetti Fossil fuels Geotechnical engineering Chemical engineering Engineering geology Engineering—Geology **Foundations** Hydraulics Fossil Fuels (incl. Carbon Capture) Geotechnical Engineering & Applied Earth Sciences Industrial Chemistry/Chemical Engineering Geoengineering, Foundations, Hydraulics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1 Geology -- Chapter 2 Pore structures -- Chapter 3 Geochemical properties -- Chapter 4 Nano-mechanical properties. This book summarizes the authors' extensive experience and Sommario/riassunto interdisciplinary approach to demonstrate how acquiring and

> integrating data using a variety of analytical equipment can provide better insights into unconventional shale reservoir rocks and their constituent components. It focuses on a wide range of properties of unconventional shale reservoirs, discussing the use of conventional and

new analytical methods for detailed measurements of mechanical properties of both organic and inorganic constituent elements as well

as of the geochemical characteristics of organic components and their origins. It also addresses the investigation of porosity, pore size and type from several perspectives to help us to define unconventional shale formation. All of these analyses are treated individually, but brought together to present the rock sample on a macro scale. This book is of interest to researchers and graduate students from various disciplines, such as petroleum, civil, and mechanical engineering, as well as from geoscience, geology, geochemistry and geophysics. The methods and approaches can be further extended to biology and medicine.