Record Nr. UNINA9910760275003321 Autore Ostadhassan Mehdi <1983-> Titolo Advanced Methods in Petroleum Geochemistry [[electronic resource] /] / by Mehdi Ostadhassan, Bodhisatwa Hazra Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2024 **ISBN** 3-031-44405-1 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (129 pages) Collana SpringerBriefs in Petroleum Geoscience & Engineering, , 2509-3134 551.9 Disciplina Soggetti Cogeneration of electric power and heat Fossil fuels Engineering geology Geotechnical engineering Fluid mechanics Fossil Fuel Geoengineering Geotechnical Engineering and Applied Earth Sciences **Engineering Fluid Dynamics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction to Petroleum Geochemistry -- Analytical Methods and Advancements -- AFM-IR and s-SNOM -- RAMAN and Chemical Mapping -- Mass Spectroscopy -- NMR Relaxometry. Sommario/riassunto This brief presents recent developments and new methodologies in the area of petroleum geochemistry, including innovative unconventional analytical methods such as Raman, NMR and XPS spectroscopy that are based on advanced analytical chemistry and recently developed instrumentation. It discusses delineating mechanisms for petroleum generation, expulsion, migration and accumulation in reservoirs from the source rock. This brief provides data, illustrations and detailed explanation of each method discussed, as well as data collection, interpretation of the results and intercorrelated characteristics of

different case studies from a variety of samples. Geologists, engineers, and graduate students interested in the petroleum industry will all find