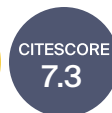




energies



Special Issue Reprint

Exploration and Development of Unconventional Oil and Gas Resources

www.mdpi.com/books/reprint/11761

Edited by

Shu Tao

Wei Ju

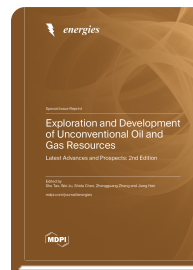
Shida Chen

Zhengguang Zhang

Jiang Han

ISBN 978-3-7258-5781-4 (Hardback)

ISBN 978-3-7258-5782-1 (PDF)



Fossil fuels continue to be fundamental to the global economies. Within this landscape, unconventional oil and gas resources are expected to play a larger and more strategic role in helping major economies meet their future energy needs. However, the efficient exploration and development of unconventional reservoirs present unique challenges that necessitate robust support from an integrated series of advanced geological and engineering studies. This multidisciplinary effort spans the entire project lifecycle, encompassing sophisticated exploration for identifying "sweet spots", comprehensive reservoir evaluation to quantify key properties, precision horizontal drilling to maximize reservoir contact, complex completion techniques to create permeable pathways, and optimized production management to ensure long-term recovery. The aim of this Special Issue is to introduce the latest scientific and technical progress in unconventional oil and gas geology and engineering. It will place emphasis on several critical frontiers, including advanced methods for reservoir characterization and evaluation, the analysis of key geological factors controlling enrichment, the development of predictive enrichment models to guide exploration, integrated approaches for accurately assessing ultra-low permeability, and fundamental mechanism analysis of fracture propagation and hydrocarbon flow.



Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/11761

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.