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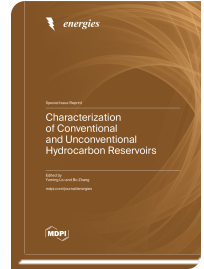
*Special Issue Reprint*

## **Characterization of Conventional and Unconventional Hydrocarbon Reservoirs**

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This special issue extensively explores various aspects, ranging from the characterization techniques of conventional and unconventional hydrocarbon reservoirs to the heterogeneity of reservoirs, numerical simulation, machine learning, and the evaluation and optimization of reservoir development. These studies demonstrate the continuous progress in oil and gas exploration and development technologies and highlight the importance of interdisciplinary integration, high-precision exploration techniques, intelligent oilfield management, and the in-depth development of unconventional oil and gas resources. Furthermore, the special issue focuses on key issues such as the quantitative assessment of oil and gas reservoirs, water flooding efficiency, and reservoir connectivity, which are crucial for optimizing the development strategies of oil and gas reservoirs. The application of high-resolution seismic imaging technology and multi-physical field coupling simulation methods indicates that future exploration technologies will develop toward higher precision and more in-depth analysis. Looking to the future, the special issue will emphasize the integration of interdisciplinary technologies, especially the combination of geology, geophysics, chemistry, and information technology, to drive innovation in oil and gas exploration and development. This approach aims to achieve a more accurate representation and a deeper understanding of hydrocarbon reservoirs.



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