

Special Issue

Oil and Gas Exploration, Applications and Development

Message from the Guest Editors

This Special Issue focuses on the core issues of sweet spot genesis in ultra-deep tight sandstone and volcanic reservoirs, with an emphasis on collecting original research results such as diagenetic fluid evolution, multi-stage dissolution and transformation, and diagenesis-controlled reservoir mechanisms. At the same time, the topic pays close attention to the application of cutting-edge technologies such as microfluidic dynamic simulation and in situ microscopic characterization, as well as their applications in hydrocarbon accumulation and reservoir evaluation, efficient oil and gas reservoir development, and enhanced recovery of deep hydrocarbon reservoirs. Relying on novel experimental methods, it reveals the microscopic dynamic processes of fluid dissolution under high-temperature and high-pressure conditions, compensating for the limitations of traditional reservoir characterization methods.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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