Special Issue

Pore Structure and Fractal Characteristics in Unconventional Oil and Gas Reservoirs, 2nd Edition

Message from the Guest Editors

Fractals have found applications in analyzing the topology of the pore space. Researchers have used fractals to model transport properties of porous media. There has been a growing interest in using fractals for understanding the transport properties of tight formations. The pore structure and their fractal characteristics can have a significant effect on the spatial distributions of the wetting and nonwetting phases, occurrence, enrichment, and flow migration of unconventional oil and gas, which play a significant role in the theoretical research and exploration and development deployment of unconventional oil and gas resources.

The purpose of this Special Issue is to promote the deeper and wider investigation and application of fractal theory in fields of geological and geophysical science. The topics to be considered in this Special Issue include, but are not limited to, the following:

Microstructures of shale, tight sandstone and coal; Geotechnical engineering; Granular aggregate properties;

Modelling of cracking behavior; Fractal characteristics of fractures;

The impact of fractal characteristics on reservoirs

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Fractal and Fractional (*Fractal Fract.*) is a scholarly online journal which provides a forum for discussion on new original models and methods in fractals and fractional calculus both from theory and applications. It is a peer-reviewed, open access journal that publishes high quality original research articles, review papers and short communications.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).