Special Issue

Stable Isotope Systematics of Coalbed Gas and Shale Gas during Desorption and Production

Message from the Guest Editor

We are proposing this Special Edition to gather research experts and their views and observations on stable isotope signatures and fractionation of shale and coal gases during lab experiments and during commercial production, in order to better understand underlying phenomena, improve systematics, and propose new avenues of studies and suggest solutions for the petroleum industry. The complex structure of coals and shales contains high fractions of kerogen and clay minerals, which control their anisotropic and complex porosity and permeability at four levels: Within the kerogen structure, intergranular, cleats/micro fractures, and large-scale fractures. Therefore, gas release from these rocks can be a cascading multiprocess and can include adsorption/desorption, diffusion, laminar flow, Knudsen flow, Darcy flow, chromatographic effects, etc. An additional imprint on these isotopic patterns can be caused by anthropogenic interference with rock properties and mineralogy, i.e., via fracturing and introduction of associated fluids, surfactants or even fresh water. Studies of C, H, O isotopes, including clumped, of CO2, CH4, and other organic and inorganic gases are of high interest.

Guest Editor

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Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.
We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

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