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Gel for Oil-Based Drilling Fluid

Guest Editor:

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Message from the Guest Editor

During the preceding decades, the unprecedented and rapid globalization has accelerated the need for petroleum and gas. For the drilling industry, the deep and ultradeep reservoirs have become among the most important targets in order to increase oil and gas production. However, the agents or drilling fluid used in conventional drilling are not suitable for the harsh conditions of the deep and ultradeep reservoirs. Thus, to maintain stable oil and gas production, it is necessary to systematically conduct extensive research on oil-based drilling fluids and related treatment agents. Gels are widely used in oil-based drilling fluids to improve the performance of drilling fluids.

This Special Issue aims to present and disseminate the most recent advances related to the synthesis, application, and mechanism of novel materials and technology for the petroleum industry. Topics of interest for publication include, but are not limited to, the following areas:

- Synthesis and characterization of gel polymers;
- The applications of gels in oil-based drilling fluid;
- Seepage pattern of oil-based drilling fluid with gels;
- Gel–reservoir interactions;
- Molecular simulation.



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Special Issue



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Message from the Editorial Board

Gels (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

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