Special Issue

Nanomaterials and Nanotechnology for the Oil and Gas Industry

Message from the Guest Editors

This Special Issue seeks contributions that highlight the use of advanced tools such as molecular simulations, high-resolution imaging techniques, digital rock modeling, pore network models, and microfluidics. These technologies provide new insights into the complex interactions between fluids and rock, allowing for more accurate predictions and improvements in reservoir performance. We especially encourage studies that investigate the application of nanomaterials to enhance oil and gas recovery, optimize subsurface storage, and improve reservoir sustainability. By incorporating the latest developments in nanotechnology, this Special Issue aims to showcase research that has the potential to revolutionize reservoir development practices, improve extraction efficiency, and support the long-term viability of carbon capture and hydrogen storage solutions in the oil and gas industry. We look forward to your valuable contributions to this innovative and rapidly evolving field.

Guest Editors

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

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