Special Issue

Nanotechnology Applied to the Oil Productivity Improvement and Enhancement of Oil Recovery

Message from the Guest Editors

The exponential growth of the world's population has led to a higher demand for fossil fuels to meet energy needs. In this regard, nanotechnology is becoming a key player in incorporating advances that lead to an increase in productivity and reserves of crude oil and gas. Recent applications under field conditions have proven that nanoparticles and nanofluids can inhibit/remediate different formation damage mechanisms, increase well productivity, and enhance the oil and gas recovery. Therefore, the main objective of this Special Issue is to provide the last advances and applications under an industrially relevant environment of nanotechnology-based solutions focused on productivity improvement and enhanced oil recovery (EOR) to face the current challenges of the oil and gas industry. Original research and review articles are welcome for this issue. Topics that will be considered for this Special Issue include but are not limited to the following:

- EOR
- EGR (enhanced gas recovery)
- Formation damage
- IOR (improved oil recovery) and well productivity
- Unconventional resources
- Surface and/or Interface phenomena
- Microfluidic
- Nanofluids/nanoparticles

Guest Editors

Prof. Dr. Farid B. Cortés

Process and Energy Department, Universidad Nacional de Colombia, Medellin 050036, Colombia

Dr. Camilo A. Franco

Process and Energy Department, Universidad Nacional de Colombia, Medellin 050036, Colombia

Deadline for manuscript submissions

closed (25 June 2021)



Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



mdpi.com/si/38553

Nanomaterials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 nanomaterials@mdpi.com

mdpi.com/journal/

nanomaterials





Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



nanomaterials



About the Journal

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 nanometerscale 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

Prof. Dr. Eugenia Valsami-Jones School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)