water

an Open Access Journal by MDPI

IMPACT FACTOR 3.0

CITESCORE 5.8

Nitrification-Denitrification Processes in Bioreactors for Wastewater and Sludge Treatment

Guest Editors:

Dr. Antonio Albuquerque
Department of Civil Engineering and Architecture, University of Beira Interior, 6201-001 Covilhã, Portugal

Dr. Qiulai He
Department of Water Engineering and Science, College of Civil Engineering, Hunan University, Changsha 410082, China

Deadline for manuscript submissions:
closed (31 May 2024)

Message from the Guest Editors

Dear Colleagues,

Nitrogen and phosphorous removal remain important and pressing challenges for water utilities with a view to discharging treated effluents into waterways or reusing water. Significant advances have been observed in biological nutrient removal (BNR) through nitrification-denitrification pathways, either in wastewater or sludge treatment, using suspended sludge, hybrid flow, or biofilm reactors, with important discoveries on anaerobic ammonium oxidation, partial nitritation, archaeal nitrification, and co-denitrification, as well as on the influence of the C/N ratio and interrelation between nitrifying, denitrifying, and phosphorus accumulating micro-organisms. Therefore, this Special Issue aims to bring the most recent and innovative research on BNR, such as:

- New developments and challenges in BNR;
- Granular sludge for BNR;
- Biological phosphorus removal in sludge acid fermentation;
- Greenhouse emissions reduction in BNR;
- Nutrient recovery;
- Algal technology for BNR;
- Modelling advances in BNR;
- Sludge treatment and reduction technologies in BNR.

water

IMPACT FACTOR 3.0

CITESCORE 5.8

an Open Access Journal by MDPI

Editor-in-Chief

Dr. Jean-Luc PROBST
Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.
Journal Rank: JCR - Q2 (*Water Resources*) / CiteScore - Q1 (Water Science and Technology)

Contact Us

Water Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/water
water@mdpi.com
𝕏@Water_MDPI