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## 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

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### 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 nitrification, 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.



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# Special Issue



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Laboratory of Functional Ecology  
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Auzeville Tolosane, 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.

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Water Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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