



## The Application of Life Cycle Assessment to Water and Wastewater Treatment

Guest Editors:

**Prof. Dr. Dongyan Mu**

School of Environmental and  
Sustainability Sciences, Kean  
University, Union, NJ 07083 USA  
dmu@kean.edu

**Prof. Dr. Min M. Addy**

Bioproducts and Biosystem  
Engineering Department,  
University of Minnesota, Saint  
Paul, MN 55108, USA  
minxx039@umn.edu

Deadline for manuscript  
submissions:

**31 October 2021**

### Message from the Guest Editors

Water and wastewater treatment are essential to human health and well-being. They are also fundamental in protecting environmental health and ecosystem sustainability. To treat water and wastewater properly, treatment facilities consume huge amounts of electricity, use various chemicals, and generate wastes and emissions which cause environmental impacts and concerns. Therefore, it is necessary to conduct a comprehensive analysis to better understand the environmental consequences of existing water and wastewater treatment facilities and new emergent techniques to improve treatment efficiency or promote recycling and reuse of waste streams. Life Cycle Assessment (LCA) is a widely used tool for environmental impact analysis and can be applied to evaluate various products, processes, and services. More importantly, it covers the entire life cycle of a product or process and provides a quantitative and holistic analysis of resource use and environmental impacts. Therefore, this Special Issue will focus on application of LCA in water and wastewater treatment.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Marc A. Rosen**

Faculty of Engineering and  
Applied Science, University of  
Ontario Institute of Technology,  
Oshawa, ON L1G 0C5, Canada

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer-reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## Author Benefits

**Open Access:**— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High visibility:** indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [Inspec](#), [AGRIS](#), [RePEc](#), [CAPlus / SciFinder](#), and many [other databases](#).

**Journal Rank:** [JCR](#) - Q2 (*Environmental Sciences*) / [CiteScore](#) - Q1 (*Geography, Planning and Development*)

## Contact Us

---

*Sustainability*  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
Fax: +41 61 302 89 18  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sustainability](http://mdpi.com/journal/sustainability)  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)  
[@Sus\\_MDPI](https://twitter.com/Sus_MDPI)