

Special Issue

Breakthroughs in Anaerobic Digestion: New Trends and Advanced Processes

Message from the Guest Editor

Anaerobic digestion is a well-known and widely applied technology where a microbial consortium facilitates the degradation of organic matter into a number of valuable products, such as energy in the form of methane and/or hydrogen; a digestate with fertilizing properties; and other by-products, such as short-chain fatty acids.

However, the great potential of this technology is yet underexploited, and current facilities are mainly focused on the production of biogas or as a means to reduce the organic load from wastewaters. Furthermore, recent breakthroughs in artificial intelligence present a promising perspective in terms of process control and mechanization, reducing the traditional issues related to the maintenance of anaerobic digesters.

Therefore, the objective of this Special Issue is to consolidate recent breakthroughs in anaerobic digestion processes and energy utilization, thereby advancing the current state-of-the-art through the compilation of pioneering theoretical insights and engineering applications.

Guest Editor

Dr. David De La Lama

Department of Physical, Chemical and Natural Systems, Universidad Pablo de Olavide, Ctra. de Utrera, km 1, 41013 Seville, Spain

Deadline for manuscript submissions

closed (20 January 2026)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/239195

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

mdpi.com/journal/

[applsci](https://mdpi.com/journal/applsci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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, Inspec, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)