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Editorial

Special Issue Titled "10th Anniversary of Processes: Recent Advances in Environmental and Green Processes"

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1. Introduction

In 2019, one of the Editorial Staff of the MDPI journal *Processes*, sent me an email informing me that I was being invited to join the Editorial Board of the journal, a proposal that I accepted. At the time of that invitation, the journal was indexed by SCIE (Impact Factor: 1.963) and covered in Scopus (CiteScore: 2.05). After a brief period as a member of the Editorial Board, I was promoted to Section-in-Chief for "Environmental and Green Processes". The indexing numbers of both the journal and this specific section are now quite different, as presented in detail through this link: https://res.mdpi.com/data/2021-09-23_processes_a5-booklet-section-flyer_green-processes_web.pdf.

Moreover, in these roles, means I have spent the last five years having the gratifying experience of sharing with researchers from all over the world that we have achieved an exponential increase in the number of publications related to *Environmental and Green Processes*. From an engineering perspective, it is very important to witness how technology is allowing us to solve some of the environmental challenges that the world is facing. This topic is what this Special Issue will cover.

2. About This Collection

The "10th Anniversary of Processes: Recent Advances in Environmental and Green Processes" Special Issue is a compilation of papers written by researchers from around the world, showing that technology (*Processes*) can be a powerful tool for resolving severe environmental problems (sometimes it provides only a partial solution, but it is nonetheless welcome).

Although the list of contributions is presented at the end of this Editorial, I would like to highlight some of the topics presented in this Special Issue that, in my opinion, respond to urgent problems in environmental research. Simple ross-referencing with the Sustainable Development Goals of the United Nations (SDG, https://sdgs.un.org/goals) will show the reader that most of the studies published are in line with one or more of these goals.

2.1. Renewable Energy

The complex global political situation has increased the necessity of finding renewable and locally available sources of energy. This is coupled with the urgent need to reduce the use of non-renewable fossil fuels. Both aspects are causes of current "second youth" anaerobic digestion. Thus, the exponential increase in the use of anaerobic digesters, which are often used to treat mixtures of organic waste of different typologies, has boosted research into topics related to this area, such as the use of additives. In this paper, the role of biochar has been highlighted.

Another important and emerging area of research is the pyrolysis of organic waste, specifically forestry biomass derived from agricultural waste. Pyrolysis and its resulting products (gas, bio-oil, and biochar) are now key, new sources of energy, and research into optimizing this technology and related issues is becoming more commonplace [1,2].

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2.2. Waste Management and Valorization

Circular economy plans, which are being developed in all over the world, have greatly increased the potential to conduct research related to waste management and, in particular, the valorization of previously rejected materials to change the paradigm from waste to product [3,4]. There are a number of examples of this topic in the current literature. This collection is not an exception to this fact.

2.3. Water

Once again, research and derived technologies are discussed in this collection to provide examples of processes that reuse water, vital given the situation of severe drought in large parts of the world. Therefore, the need for new sources of clean water is a consolidated research topic. In this sense, it is interesting that water-related research today more regularly focuses on recovery and reuse than treatment, although the latter topic is still very important [5].

2.4. Environmental Tools and Modeling

Finally, it is important to highlight the increasing use of both classical and new tools in environmental research. On one hand, it is evident that the Life Cycle Assessment method has consolidated its position as the predominant technique used to analyze and categorize the environmental impact of any environmental study, providing a decision tool for use by stakeholders involved in the implementation of environmental solutions. On the other hand, it is worth noting that new computational tools such as neural networks or machine learning software have created new possibilities beyond the scope of classical environmental research [6].

3. Conclusions

In summary, I think that the reader of this collection can view an number of excellent research studies that reflect some of the most urgent environmental challenges faced by society, and more importantly, the studies present potential solutions. As said in most of the studies' Conclusions sections, further research is need in all the fields that comprise this Special Issue.

Conflicts of Interest: The author declares no conflicts of interest.

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