

Editorial

Biomass Conversion: Fermentation Chemicals and Fuels

Konstantinos G. Kalogiannis 🔍



European Climate, Infrastructure and Environment Executive Agency, European Commission, 1040 Brussels, Belgium; kkalogia@hotmail.gr

Rendezvous with Rama [1], a well-known science fiction novel by author Arthur C. Clarke, was published in 1973. In this trailblazing novel, we get the chance to follow a group of human explorers that come into contact with different alien races in a unique alien spacecraft. The human explorers investigate many different alien civilizations, all cohabitants in this giant spacecraft, and have a chance to see how different races use science for their own benefit.

I distinctly remember one of the technologies witnessed by these human explorers. An alien race had grown microorganisms to produce electric energy. The microorganisms were separated from their food source via a mesh through which they could swim. Each time they consumed their food, their bodies produced an excess of electric energy as a byproduct, which was depleted as they went through the mesh seeking a new food source. I was astounded by this idea and marveled at the imagination of the author. What is even more astounding though is that today this does not sound like science fiction.

Here are a few examples of what science fiction may sound like today: growing fungi to produce novel feed sources, feeding microorganisms to produce desirable chemicals and fuels for our engines, turning agricultural residues into desirable products through the use of enzymes and yeasts, and manipulating fermentation pathways to produce bioinsecticides.

Additionally, as you might have guessed, these are far from science fiction stories; they are some of the topics you will have the chance to read, or rather experience, in this Special Issue of Fermentation. In the pages of this issue lie more than just numbers, data, and scientific conclusions. Herein lie the dreams, aspirations, visions, and potential of the scientists working with fermentation technologies.

Therefore, I invite you to read these scientific papers not just as reports, figures and tables but as short stories, each one describing a unique journey within the promising and inspiring field of fermentation. To quote Arthur C. Clarke once more, "The only way of discovering the limits of the possible is to venture a little way past them into the impossible."

I hope you will enjoy experiencing this Special Issue as much as I enjoyed making a small contribution from the role of special editor.

Acknowledgments: The editor thanks all of the authors and the editorial staff, especially managing editor Mayora Li, who contributed to the success of this Special Issue.

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

Reference

Clarke, A.C. Rendezvous with Rama; Harcourt Brace Jovanovich: San Diego, CA, USA, 1973.



Citation: Kalogiannis, K.G. Biomass Conversion: Fermentation Chemicals and Fuels. Fermentation 2021, 7, 77. https://doi.org/10.3390/ fermentation7020077

Received: 7 May 2021 Accepted: 10 May 2021 Published: 13 May 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/)