# **Biofuel Research Journal**

DOI: 10.18331/BRJ2023.10.4.1

#### Aims and Scope

Biofuel Research Journal (BRJ) is a leading, peer-reviewed academic journal dedicated to publishing high-quality research on biofuels, bioproducts, and related biomass-derived materials and technologies. BRJ is an open-access online journal and completely free-of-charge, aiming to advance knowledge and understanding of sustainable energy solutions, environmental protection, and the circular economy through cutting-edge research and innovative applications. The journal welcomes original articles, review papers, case studies, short communications, and hypotheses in the following areas:

- Biofuels and Bioproducts: Exploring the production, characterization, and application of various biofuels, such as biodiesel, bioalcohols (bioethanol, biobutanol), biogas (biomethane, biohydrogen), algal biofuels, and other emerging biofuel sources. Additionally, BRJ encourages research on bioproducts, including biocomposites, bio-based smart materials, and innovative applications in the fields of food, pharmaceuticals, and beyond.
- Biomass Valorization: Investigating efficient and sustainable methods for biomass conversion, including biorefineries, bioprocesses, and advanced biomass utilization techniques to maximize energy and value-added product yields.
- Biomass-Derived Materials for Energy and Storage Systems: Advancing research on biomass-derived materials with potential applications in energy 3. conversion and storage systems, including fuel cells, batteries, supercapacitors, and photovoltaic modules.
- Biomass-Derived Materials for Environmental Sustainability: Exploring using biomass-derived catalysts and materials for carbon dioxide capture and conversion to mitigate greenhouse gas emissions. Additionally, researching biomass-derived catalysts for air, soil, and water pollution mitigation contributes to improved environmental quality.
- Biomass-Derived Materials for Sustainable Applications: Investigating the use of biomass-derived materials in food applications, such as sustainable packaging materials or functional food ingredients, as well as their potential in biomedical applications, drug delivery systems, tissue engineering, and regenerative medicine.
- 6. Biomass-Derived Materials for Catalytic Applications: Advancing the understanding and development of biomass-derived materials with catalytic properties, enabling green and sustainable manufacturing processes and chemical transformations.
- Techno-Economic and Environmental Assessments: Analyzing the techno-economic feasibility and environmental sustainability (life cycle 7. assessment, exergy, emergy, risk assessment) of biofuel, bioproduct, and biomass-derived materials production and application pathways, ensuring their compatibility with international standards (e.g., PAS 2050:2011 and ISO 14040:2006).
- Climate Change and Sustainability: Investigating the impacts of biofuel and bioproduct production and consumption on climate change and promoting innovative, low-carbon pathways for their production and use. Articles focusing on strategies for limiting greenhouse gas emissions and promoting circular economy principles in the bioenergy sector are encouraged.
- Novel Processing and Integrated Systems: Highlighting innovative approaches and integrated systems for biofuel and bioproduct processing, as well as energy audits for production plants to enhance efficiency and sustainability.
- 10. Artificial Photosynthesis for Biofuels Production: Exploring cutting-edge research on artificial photosynthesis as a potential green route for biofuels
- Promotion of Biofuels and Bioproducts in Developing Economies: Encouraging research on the promotion and adoption of biofuels and bioproducts in developing economies to foster indigenous development and sustainable energy solutions.
- Biofuels and Bioproducts in Circular Economy: Addressing the role of biofuels and bioproducts in the circular economy framework, focusing on resource efficiency, waste valorization, and sustainability.
- Biofuels and Bioproducts Finance: Exploring financial aspects related to biofuels and bioproducts, including investment strategies, funding mechanisms, and economic considerations for the development and commercialization of sustainable bioenergy solutions

BRJ aims to foster interdisciplinary collaborations among researchers, engineers, scientists, policymakers, and industry experts to accelerate the adoption of sustainable energy solutions and foster a greener future. The journal is committed to maintaining the highest standards of peer review and editorial integrity, ensuring that only high-quality and impactful research is published.

### **Editor-in-Chief**

Vijai Kumar Gupta, Scotland's Rural College, Scotland, UK

#### Senior Editors

Yusuf Chisti, Universiti Malaysia Terengganu, Malaysia Ahmad Fauzi Ismail, Universiti Teknologi Malaysia, Malaysia Seeram Ramakrishna, National University of Singapore (NUS), Singapore Solange I. Mussatto, Technical University of Denmark, Denmark

#### Associate Editors

Aghbashlo, Mortaza Karimi, Keikhosro Thakur, Vijay Kumar University of Tehran, Iran Vriie Universiteit Brussel, Belaium Scotland's Rural College, Scotland

## **Editorial Board Members**

Allakhverdiev, Suleyman Institute of Plant Physiology, Russian Academy of Sciences, Russia

Bux, Faizal

Durban University of Technology, South Africa

Carlucci, Antonio Paolo University of Salento, Italy

Faaij, Andre

University of Groningen, The Netherlands

Hubbe, Martin A. NC State University, NC, USA Indra Mahlia, TM

University of Technology Sydney, Australia

Keat Teong, Lee

Universiti Sains Malaysia (USM), Malaysia

Kennes, Christian Universidade da Coruña, Spain

Kumar, Rajeev

University of California, Riverside (UCR), CA, USA Lam, Su Shiung

Universiti Malaysia Terengganu, Malaysia

Lane, Nick

University College London, UK

Lee, Duu-Jong

National Taiwan University of Science and Technology (NTUST), Taiwan

Luque, Rafael

Universidad de Córdoba, Spain

Matsuura, Takeshi University of Ottawa, Canada Montgomery, Hugh University College London, UK Najafpour, Mohammad Mahdi Institute for Advanced Studies in Basic Sciences, Iran Nizami, Abdul-Sattar

Government College University, Pakistan Pandey, Ashok

CSIR-National Institute for Interdisciplinary Science and Technology, India

Pant, Deepak

VITO-Flemish Institute for Technological Research, Belgium Ruiz, Héctor A.

Autonomous University of Coahuila, Mexico

Singhania, Reeta Rani

Center for Advanced Bioenergy Research, IOCL R & D Faridabad, India

Tabatabaei, Meisam Universiti Malaysia Terengganu, Malaysia Taherzadeh, Mohammad J University of Borås, Borås, Sweden Van Loosdrecht, Mark

Delft University of Technology, The Netherlands

Wang, Yong

Washington State University, USA Watts. Nick

University College London, UK

## **Managing Editors**

Khoshnevisan Benyamin Shafiei Marzieh Keppel Seghers Belgium (NV), Belgium University of Southern Denmark, Denmark Pan. Junting

Yang, Yi

Chongaina University, Chongaina, China

Chinese Academy of Agricultural Sciences, China

#### **Publication Policy**

Biofuel Research Journal (ISSN 2292-8782). All materials, including Articles published in Biofuel Research Journal, are published at no processing charge, and will be Open-Access articles distributed under the terms and conditions of the Creative Commons Attribution 4.0 International License (CC BY 4.0) Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/)

Claims and journal enquiries: please contact the Editorial Office at <editorial@biofueljournal.com>.