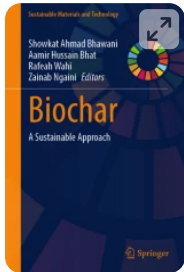


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Biochar

A Sustainable Approach

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Overview



Editors: [Showkat Ahmad Bhawani](#), [Aamir Hussain Bhat](#), [Rafeah Wahi](#), [Zainab Ngaini](#)

Provides an overview of the recent advances in processing and applications of biochar

Outlines the latest design and manufacturing process of biochar into various materials
Includes the applications of biochar in composting, catalysis, and removal technology

 Part of the book series: [Sustainable Materials and Technology \(SMT\)](#)

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About this book

This book highlights the latest research on biochar, a low-cost carbonaceous material produced from biomass, and is regarded as an economical substitute to the activated carbon. The book describes the production and the characteristics of biochar through various techniques/methods such as pyrolysis, gasification, torrefaction, and hydrothermal carbonization of carbonaceous biomass, such as agricultural residues, algal biomass, forest residues, manures, activated sludge, energy crops, digestate at high temperature (300–900 °C) and under O₂-limiting conditions. The book also highlights the several unique properties of biochar such as an efficient, cost-effective, and environmentally-friendly material for diverse contaminants removal. The variability in physicochemical properties (e.g., surface area, micro-porosity, and pH) provides an avenue for biochar to maximize its efficacy to targeted applications. This book interests academics working in the development of green and sustainable technology in agricultural engineering, material science, chemical engineering, and environmental science.

Keywords

[Biochar Production](#)

[Biochar Compost](#)

[BioChar Biosorbent](#)

[Pollution Mitigation](#)

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Editors and Affiliations

Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, Kota Samarahan, Malaysia

Showkat Ahmad Bhawani

Applied Chemistry Section, University of Technology and Applied Sciences, College of Applied Sciences and Pharmacy, Al Khuwair, Muscat, Oman

Aamir Hussain Bhat

Faculty of Resource Science and Technology, University of Malaysia, Kota Samarahan, Malaysia

Rafeah Wahid, Zainab Ngaini

About the editors

Dr. Showkat Ahmad Bhawani is presently working as an associate professor at the Department of Chemistry, Faculty of Resource Science and Technology, UNIMAS Malaysia. In addition to this, he has a teaching experience of two years from King Abdul Aziz University–North Jeddah and a post-doctoral experience of three years from the Universiti Sains Malaysia, Malaysia. He received his M.Sc. in Analytical Chemistry and Ph.D. in Applied Analytical Chemistry from

Aligarh Muslim University, Aligarh, India. He is working on the synthesis of molecular imprinting polymers for the removal/extraction of dyes, fungicides, and various natural products from environmental and biological samples. In addition to this, he is also working on the development of new test methods and determining standard conditions for analysis (separation, isolation, and determination) of various analytes from environmental and biological samples.

Dr. Aamir Hussain Bhat is a faculty member at the Department of Chemistry, Higher College of Technology, Muscat, Oman. He was born on June 4, 1980, in Baramulla, India. He received his highest degree of Doctorate from the Indian Institute of Technology–Kharagpur, which ranks among the prestigious institutes of India. He has four years of postdoctoral experience at Universiti Sains Malaysia and around 5 years of teaching experience in the capacity of an assistant professor in Chemistry at Universiti Teknologi Petronas, Malaysia. Dr. Aamir was awarded Prime Ministerial Postdoctoral fellowship by the Ministry of Higher Education, Malaysia, for his excellence in the field of research. He has been a principal investigator of many government-funded projects. He is serving as a reviewer for several high impact ISI journals of Elsevier, Springer, Wiley, Taylor and Francis, Sage, etc.

Dr. Rafeah Wahid is a senior lecturer at the Faculty of Resource Science and Technology, UNIMAS. She received her Doctorate degree in Environmental Engineering from the Universiti Putra Malaysia in 2015. She was awarded the 2016 UNIMAS Most Promising Academician (Anugerah Akademik Harapan 2016) and Certificate of Outstanding Contribution in Reviewing by Elsevier in 2016. Her current H-index is 9, and one of her review papers was cited for more than 250 times. She also co-authored 3 books and published more than 50 scientific publications including journals, proceedings, and articles in bulletins. She is a reviewer for more than 15 journals. She has also been involved in the Ministry of Higher Education (MOHE) as Strategic Committee for Service Learning Malaysia–University for

Society (SULAM) since 2018 and contributed in writing the SULAM Playbook and High Impact Educational Practices (HIEPs) in General Studies Courses (MPU) Guidebook.

Dr. Zainab Ngaini is a professor at the Faculty of Resource Science and Technology. She obtained her Ph.D. in 2002 from the University of East Anglia, UK, in Organic Chemistry. Her field of specialization covers green synthesis of organic compounds for various applications and chemical modification of agricultural waste for industrial applications such as biochars as adsorbent for environmental and biomedical applications, adsorbent for oil spills remedies, green biomaterials for solar energy, sound-absorbing materials with inherent fire retardant properties, eco-friendly paraffin wax alternatives for batik industries, and many more products that benefit the society. She is also listed as an inventor of 12 patents. She is a consultant for Serapi Bayu Sdn Bhd on Sarawak Stingless Bees Honey Project and Research panel in research and innovation for the Malaysian Pepper Board and Science School Kuching. She is an active committee member of Institut Kimia Malaysia.

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Showkat Ahmad Bhawani · Aamir Hussain Bhat ·
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Editors

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Editors

Showkat Ahmad Bhawani
Faculty of Resource Science
and Technology
Universiti Malaysia Sarawak
Kota Samarahan, Malaysia

Rafeah Wahid
Faculty of Resource Science
and Technology
Universiti Malaysia Sarawak
Kota Samarahan, Malaysia

Aamir Hussain Bhat
Applied Chemistry Section
College of Applied Sciences and Pharmacy
University of Technology and Applied
Sciences
Muscat, Oman

Zainab Ngaini
Faculty of Resource Science
and Technology
Universiti Malaysia Sarawak
Kota Samarahan, Malaysia

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