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| 1. Record Nr. | UNINA9910983321103321 |
| Autore | Jawaid Mohammad |
| Titolo | Rice Husk Biomass : Processing, Properties and Applications // edited by Mohammad Jawaid, Brajendra Parmar |
| Pubbl/distr/stampa | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025 |
| ISBN | 9789819610822 9819610826 |
| Edizione | [1st ed. 2025.] |
| Descrizione fisica | 1 online resource (451 pages) |
| Collana | Sustainable Materials and Technology, , 2731-0434 |
| Altri autori (Persone) | ParmarBrajendra |
| Disciplina | 620.19 |
| Soggetti | Biomaterials Biotechnology Biochemical engineering Plant Materials Chemical Bioengineering Bioprocess Engineering |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Introduction -- Processing of Rice husk -- Physical and Chemical properties of Rice Husk -- Rice Husk, Rice Husk Ash, and Their Applications -- Extraction and Properties of Silica from rice husk -- Potential applications of rice husk derivatives as useful adsorptive material -- Rice husk as an efficient adsorbent for phosphate removal -- Rice Husk for the Production of Multifunctional Liquid Smoke -- Nanocellulose Produced from Rice Husk -- Effects of Rice Husk and Rice Husk Charcoal on Soil Physicochemical Properties -- Rice husk combustion and ash recycling -- Rice Husk Ash Brick Using Neutron Radiography Technique -- Rice Husk as Reinforcement in Wood Plastic Composites -- Flowable Fill Concrete from Rice husk ash -- Rice-husk-based materials for 3D printers -- Nanoporous materials from Rice husk and rice husk ash for adsorptive biomedical applications -- Rice husk-based composite film -- Rice husk-based Biocomposites -- Particleboard from Rice husk -- Sustainable thermal insulation biocomposites from rice husk. |
| Sommario/riassunto | This book covers the processing, properties, and application of rice |

husk, also widely known as rice hull, which is an available agricultural waste in numerous rice-producing countries. These by-products are generated in significant quantities and must be treated and disposed of properly. Rice husk is an abundantly available waste material in all rice-producing countries. Approximately 120 million tons of rice husk is available each year after it has been removed from the whole rice paddy and is composed of 15% carbon, 18% ash, and 67% volatile matter. This book covers in-depth about processing and properties of rice husk and different by-products such as silica, rice husk ash, and nano fillers. This book also deals with various applications of rice husk in adsorbent, construction and building materials, composites, and nanocomposites. The book is a comprehensive reference resource for graduate students, early career researchers, scientists as well technologists working in the field of forestry, natural resources, material, and polymer sciences from concepts, fabrication, properties, and applications.

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| 2. Record Nr. | UNINA9910986137303321 |
| Autore | Wu Lifeng |
| Titolo | Fractional Grey System Model and Its Application / / by Lifeng Wu, Yan Chen |
| Pubbl/distr/stampa | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025 |
| ISBN | 9789819632688 9819632684 |
| Edizione | [1st ed. 2025.] |
| Descrizione fisica | 1 online resource (185 pages) |
| Collana | Series on Grey System, , 2731-4944 |
| Altri autori (Persone) | ChenYan |
| Disciplina | 658.5 |
| Soggetti | Production management Operations research Operations Management Operations Research and Decision Theory |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | 1. Fractional order accumulation -- 2. Grey system model with the |

fractional order accumulation -- 3. Grey multivariable convolution model with new information priority accumulation -- 4. Fractional Hausdorff grey model and its properties -- 5. Grey accumulation generator operator for the middle size data -- 6. Applications of the fractional order models.

Sommario/riassunto

This book covers up-to-date theoretical and applied advances in fractional order grey systems theory from across the world and vividly presents the reader with the overall picture of this new theory and its frontier research. Many of the concepts, models, and methods in the book are original by the author, including grey system model with the fractional order accumulation and its properties, the relationship between the sample size and the stability of grey forecasting model, applications of the fractional order grey models in sustainable development and energy consumption forecasting, grey forecasting model for the middle size data, etc. This book is appropriate as a reference and/or professional book for courses of environmental management and grey system theory for graduate students or high-level undergraduate students, majoring in areas of science, technology, agriculture, environmental science, earth science, economics, and management. It is also utilized by researchers and practitioners in research institutions, business entities, and government agencies.
