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| Autore | Sapuan S. M |
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| Descrizione fisica | 1 online resource (170 pages) |
| Altri autori (Persone) | IlyasR. A<br>HarussaniM. M |
| Disciplina | 620.118 |
| Soggetti | Composite materials<br>Biomaterials<br>Materials<br>Catalysis<br>Force and energy<br>Energy harvesting<br>Composites<br>Materials for Energy and Catalysis<br>Materials Engineering<br>Materials for Devices<br>Energy Harvesting |
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| Nota di contenuto | Introduction to COVID-19 and Its Repercussions -- Basic Knowledge of Composite and Biocomposite -- Role of Composites during COVID-19 Pandemic -- Application of Biocomposites during COVID-19 Pandemic -- Emerging developments on nanocomposite-based membrane filtration material against microbes -- Char Applications in Medical and Domestic Waste Management -- Materials Selection of Biopolymer Composites Filled with Waste Personal Protective Equipment (PPE) using Analytical Hierarchy Process for the Biocomposite Products -- Public Awareness Campaign and its Impacts towards Community. |
| Sommario/riassunto | This book examines advanced composites, such as biocomposites, |

hybrid composites, hybrid biocomposites, and nanocomposites to address the COVID-19 pandemic. In the past two years, composite materials have grown in strength, stature, and significance to become a key material of enhanced scientific interest and resultant research into understanding their behavior for selection and safe use in a wide spectrum of technology-related applications. The authors describe distinctive features of these materials, such as low density, high strength, high elastic modulus, high hardness, high temperature endurance, and outstanding chemical and environmental stability. The book further discusses recent global scenarios during the pandemic, composite and biocomposite materials characterization, design solutions, the characteristics and performance of materials and structures, and their roles in reducing virus spread. It also looks at the prospects, obstacles, and future directions of composites.