1. Record Nr. UNINA9910853988103321

| | |
|---|---|
| Autore | Bhawani Showkat Ahmad |
| Titolo | Vegetable Oil-Based Composites : Processing, Properties and Applications / / edited by Showkat Ahmad Bhawani, Anish Khan, Mohmad Nasir Mohmad Ibrahim, Mohammad Jawaid |
| Pubbl/distr/stampa | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024 |
| ISBN | 9789819999590<br>9819999596 |
| Edizione | [1st ed. 2024.] |
| Descrizione fisica | 1 online resource (192 pages) |
| Collana | Composites Science and Technology, , 2662-1827 |
| Altri autori (Persone) | KhanAnish<br>Mohmad IbrahimMohmad Nasir<br>JawaidMohammad |
| Disciplina | 665.3 |
| Soggetti | Composite materials<br>Materials<br>Bionics<br>Composites<br>Materials Engineering<br>Bioinspired Materials |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Introduction to vegetable oils -- Processing and properties of vegetable oil based composites -- Manufacturing and design of vegetable oil composites -- Vegetable oil based biocomposites -- Vegetable oil based polyester composites -- Vegetable oil based polyurathane composites -- Vegetable oil based epoxy composites -- Vegetable oil based polyolefinic composites -- Caster oil based composites -- Linseed oil based composites -- Soybean oil based composites -- Corn oil based composites -- Olive oil based composites -- Palm oil based composites -- Canola oil based composites -- Vegetable oil based biocomposites reinforced with inorganic fillers -- Vegetable oil based biocomposites reinforced with agricultural residues -- Fiber reinforced vegetable oil based vinyl polymer composites -- Fiber reinforced vegetable oil based epoxy composites -- Fiber reinforced vegetable oil based polyurethane composites -- Clay reinforced vegetable oil based |

composites -- Carbon nanotube and graphene reinforced vegetable oil composites -- Natural fiber reinforced vegetable oil composites.

Sommario/riassunto

This book presents the latest developments in the field of vegetable oil -based composites. It focuses on different vegetable oils such as castor, linseed, corn, soybean, olive, palm, and canola oils;, and fillers from inorganic materials and agricultural residues used in the preparation of vegetable oil -based composites. There are several advantages to vegetable oil-based polymer composites, due to their universal availability, inherent biodegradability, low price, and superb environmental credentials (i.e., low eco-toxicity and low toxicity towards humans). This book will be of is of interest to researchers working in the field of bio-based composite materials for the development of green and sustainable materials.