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Descrizione fisica	1 online resource (XII, 280 p. 146 illus., 98 illus. in color.)
Disciplina	620.14
Soggetti	Ceramics Glass Composites (Materials) Composite materials Building materials Sustainable development Polymers Ceramics, Glass, Composites, Natural Materials Building Materials Sustainable Development Polymer Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Potential of Hemp in Thermoplastic Biocomposites- The effect of Fibre Structure -- Industrial Hemp Transformation for Composite Applications: Influence of Processing Parameters on the Fibre Properties -- Use of Sugar Cane Fibers For Composites- A Short Review -- Impregnated Fibre Bundle Test for Natural Fibres Used in Composites -- Evaluation of the Extraction Efficiency of Enzymatically Treated Flax Fibers -- Influence of Coupling Agent on the properties of Polypropylene Composites Reinforced with Palm Fibers -- Effect of Time-dependent Process Temperature Variation During Manufacture of Natural-Fiber Composites -- About nonlinear behavior of unidirectional plant fibre composite -- Investigating the transient response of hybrid composite materials reinforced with flax and glass fibres -- The

Response of Manicaria Saccifera Natural Fabric Reinforced PLA Composites to Impact by Fragment Simulating Projectiles -- Advances in natural fibre reinforced thermoplastic composite manufacturing: Effect of interface and hybrid yarn structure on composite properties -- Environmental Friendly Thermoplastic Composite Laminates reinforced with Jute Fabric -- Selection of Chart of Flame Retardants for Natural Fiber Polymer Composites -- Mechanical Properties of Raffia Fibres Reinforced Geopolymer Composites -- Sustainable composites based on pine resin and flax fibre -- Development and Characterization of Microcrystalline Cellulose Based Novel Multi-Scale Biocomposites -- Investigation of Mechanical and Thermomechanical Properties of Nanocellulose Coated Jute/Green Epoxy Composites -- The Use of Sedimentation for the Estimation of Aspect Ratios of Charged Cellulose Nanofibrils -- Electrical Conductivity of PLA Films Reinforced with Carbon Nano Particles from Waste Acrylic Fibers -- Allocation in the Life Cycle Assessment (LCA) of Flax Fibres for the Reinforcement of Composites -- Applications of Building Insulation Products Based on Natural Wool and Hemp Fibers -- Hemp-Clay Concretes for Environmental Building - Features that attribute to drying, stabilization with lime, water uptake and mechanical strength -- The Use of Hemp in Building Components for the Development of A Modular House in a Rural Area of Cauca-Colombia.

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#### Sommario/riassunto

This book presents selected high-quality research papers submitted to ICNF 2017, the 3rd International Conference on Natural Fibers, which was held in Braga, Portugal, on 21–23 June 2017. It discusses the latest research and developments in the field and covers a wide range of topics related to various aspects of natural-fiber composites, such as production and processing of raw materials, surface modification and functionalization, advanced fibrous structures for composites, nano fibers, experimental characterization, modeling and analysis, design and product development, applications, market potential, and environmental impacts. The book presents the latest research work addressing different approaches and techniques to improve processing, performance, functionalities and cost-effectiveness of natural-fibers composites, in order to increase their applications in different industrial sectors such as automobiles, transportation, construction, and sport. &nbsp;

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