

1. Record Nr.	UNINA9911007248803321
Autore	Rivera-Armenta Jose Luis
Titolo	Sustainable Materials
Pubbl/distr/stampa	Zurich : , : Trans Tech Publications, Limited, , 2023 ©2023
ISBN	3-0364-1120-8
Edizione	[1st ed.]
Descrizione fisica	1 online resource (310 pages)
Altri autori (Persone)	KolisnychenkoStanislav
Soggetti	Materials - Environmental aspects Biopolymers Green technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Sustainable Materials -- Preface -- Table of Contents -- Chapter 1: Bio-Based Polymers and Composites -- Study of the Potential Employment of Malvaceae Species in Composites Materials -- Smart and Sustainable Materials for Military Applications Based on Natural Fibres and Silver Nanoparticles -- Potential for Use of Veneer-Based Multi-Material Systems in Vehicle Structures -- Preliminary Investigation on Improving Biopolymer Properties Using Nanocellulose from Tropical Forest Species -- Use of Simulation to Enhance the Performance of Sustainable Bio-Based Polyurethan Fome -- Recent Advances in Bio-Based Sustainable Aliphatic and Aromatic Epoxy Resins for Composite Applications -- Tensile Properties of Unidirectional Kenaf Polypropylene Composite at Various Temperatures and Orientations -- Unidirectional Kenaf Polypropylene Composites: Optimization Process by Two Level Full Factorial -- Water Sorption of Vegetable Fiber Reinforced Polymer Composites -- Experimental Strength of Woven Fabric Kenaf Composite Plates with Different Stacking Sequences -- Evaluation of the Performance of the Composite Bamboo Yacht Material -- Mechanical Properties of New Sustainable Polymeric Formulations for Rotomoulding Processes -- Sustainable Fabrication Technology of Composite Board by Kenaf-Polypropylene for Automobile Door Interior Applications -- Microstructure of

Thermoplastic Composites Reinforced with Wool and Wood -- Tensile and Flexural Properties of Untreated Sisal Fibers Reinforced Unsaturated Polyester Resin Composites -- Optimal Use of Industrial Hemp for PLA Biocomposite and LLDPE Composite Reinforcement -- Development of Plywood Binder by Partial Replacement of Phenol-Formaldehyde Resins with Birch Outer Bark Components -- Study of an Appropriate Suberinic Acids Binder for Manufacturing of Plywood. Short Review: Potential Production of Acacia Wood and its Biocomposites -- Chapter 2: Materials for Energy Storage and Conversion Technologies -- Effect of Particle Size on the Physical Properties of Activated Palm Kernel Shell for Supercapacitor Application -- Optimization of Dye Extraction from Purple Cabbage and Cordyline Fruticosa in Dye-Sensitized Solar Cell -- Carbon Nanosheet Frameworks Derived from Pine Cone Shells as Sodium-Ion Battery Anodes -- Hydrothermal Synthesis of Binder-Free Kapok (Ceiba pentandra) Fiber Paper-NiCo₂O₄ Supercapacitor Electrode -- The Interconnected Open-Channel Highly Porous Carbon Material Derived from Pineapple Leaf Fibers as a Sustainable Electrode Material for Electrochemical Energy Storage Devices -- Chapter 3: Organic Corrosion Inhibitors, Coatings and Lubricants -- Austenitic 316L Stainless Steel -- Corrosion and Organic Inhibitor: A Review -- Comparison of the Protection Performance of Calciofon and Rosmarinus Officinalis on Low Carbon Steel Corrosion in Petrochemical Drilling Fluid -- The Synthesis and Surface Properties of Newly Eco-Resin Based Coconut Oil for Superhydrophobic Coating -- Tribological Evaluation on Various Formulation of Modified RBD Palm Olein as Sustainable Metalworking Fluids for Machining Process -- Chapter 4: Materials Based on Organic Waste -- Grass Waste Derived Cellulose Nanocrystals as Nanofiller in Polyvinyl Alcohol Composite Film for Packaging Application -- Design and Research of Eco-Friendly Polymer Composites -- Can European Sea Bass (*Dicentrarchus labrax*) Scale Be a Good Candidate for Nano-Bioceramics Production? -- The Influence of Mechanical and Mechanochemical Activation of Hardwood Wood Waste on Biocomposite Properties -- Synthesis of Sustainable and High Purity of Quicklime Derived from Calcination of Eggshell Waste in a Laboratory-Scale Rotary Furnace. Chapter 5: Materials Based on Inorganic Waste -- Utilization of Fly Ash in the Synthesis of Refractory Forsterite-Spinel Ceramics -- Preparation of SiO₂-Na₂O-CaO-P₂O₅ Glass-Ceramic from Waste Materials and Heat Treatment Effects on its Morphology -- Influence of Fly Ash Addition in the Raw Mixture on Synthesis and Properties of Forsterite -- Development of Composite Using Recycled PET Reinforced with Fiberglass Powder, Sawdust and Gypsum -- Novel Bio-Based Composites Panels from TetraPak Waste -- A Study on Acoustic Property of Composites from Waste Tyres -- Novel Sustainable Composites with Geopolymeric Steel Slag and Recycled from Packing PET -- Synthesis of Spinel Color Pigments from Aluminum Dross Waste -- Effect of Borax on Lightweight Material from Cullet and Fly Ash -- Keyword Index -- Author Index.