1. Record Nr. UNINA9910624312203321

Titolo	Recent Trends in Materials : Select Proceedings of ICTMIM 2022 / / edited by K. Geetha, Francisco M. Gonzalez-Longatt, Hui-Ming Wee
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-19-5395-3
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (484 pages)
Collana	Springer Proceedings in Materials, , 2662-317X ; ; 18
Disciplina	622.05
Soggetti	Optical materials Nanotechnology Materials Catalysis Force and energy Surfaces (Technology) Thin films Optical Materials Materials for Energy and Catalysis Materials for Devices Surfaces, Interfaces and Thin Film
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Computation of Properties for a Friction Stir Welded 6082 Aluminum Alloy using Artificial Neural Network Model -- Study of Frictional Force and Volumetric Wear Rate of T6 Heat Treated Hypereutectic Al-18Si-3.6Cu-0.36Ce Alloy -- Phased array ultrasonic evaluation for defect characterization in aerospace grade maraging steel MDN 250 weldments -- Solving Heat and Wave Equations by New Integral Transform Rohit Transform -- Artificial Cells as Programmable, Micro-/Nano-Structured Bio-Materials -- Biosynthesis of PHBs by the method of full-factorial design for obtaining PHB/magnetite composites -- Validation of the Experimental results of the concrete with M-sand using ABAQUS software -- A Review on the use of Industrial waste and Agricultural waste in the production of Alkali Activated Concrete --

Various Geometrical Parameters of the Topography Elements of the Honeycomb Films from PHB and its Copolymer with 3-hydroxyvalerate -- Piezoelectric Energy Harvesting From Automotive Wheels -- Modelling of Graphene Oxide coated QCM sensor for E-Nose application -- Low-temperature reduction processing of copper slag -- Application of Additive Manufacturing For Customized Split Insole Design -- On Complex Loading of Shell of Revolution -- On a Method of Calculating of Continua with an Initial Crack -- Ultra-broadband Absorber based on metasurfaces in the infrared regime -- Analysis of Micro RF switches role in Reconfigurable Antenna Design -- Automatic Headlight Intensity Control using Light Dependent Resistor -- Natural frequency of overhead water tanks using shaking table -- Metamaterial Based Biomedical Antenna for Low SAR Applications.

Sommario/riassunto

This book presents the select proceedings of 4th International Conference on Trends in Material Science and Inventive Materials (ICTMIM 2022). Various topics covered in this book are nanotechnology in materials science, green and sustainable materials, semiconductor & electronic materials and devices, bio electronic materials and sensors, thin films, materials surface and interfaces, modern electronic materials, multilayered structures and composite materials, quantum-sized structures and nanocrystals, electronic biosensors, MEMS and sensors, light emitting materials, nanomaterials, opto-electronic materials, microwave and antenna, nanostructure fabrication and self-assembly, self-healable and stretchable configurations, data-driven materials design, advanced charge transfer and suitable interfaces, metallization and superconductivity. Given the contents, the book will be useful for students, researchers and professionals working in the area of material science and engineering.