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Soggetti	Materials Ceramic materials Materials - Analysis Catalysis Force and energy Nanotechnology Biomaterials Materials Engineering Ceramics Characterization and Analytical Technique Materials for Energy and Catalysis
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Nota di contenuto	On study A brief study on the heterogeneity of the P91 welded joint -- Recent Innovation on Synthesis methods of Graphene based Composites -- Evaluation of mechanical properties of carbon fiber reinforced multiwall carbon nanotubes-based nanocomposites -- Structural and modal analysis of peek-cf composite for aircraft wing -- Mechanical characterization of 60Pb40Sn reinforced Al6061 self-healing composite -- A Brief Overview of Crystal Plasticity Approach for Computational Materials Modeling -- Evaluation of creep and compressive behavior of MWCNTs reinforced Polyurethane composites -- Influence of particle morphologies of mesoporous hydroxyapatite nanopowders on controlled delivery of vancomycin drug -- Critical

review on corrosive properties of metals and polymers in oil and gas pipelines -- Synthesis and Characterization of Aluminum Composite Reinforced by Multiwall Carbon Nanotubes -- Effect of TiC reinforcement in the Copper tool on roundness during EDM process -- Mechanical and microstructural characterization of Magnesium/Multi-walled Carbon Nanotubes composites fabricated via Friction Stir Processing -- Influence of Surface Treatment and Moulding Temperature on Mechanical properties of Jute/PLA based Green Composites -- Effect of Nanoclay in unidirectional carbon-epoxy laminated composites -- Microstructural evolution and mechanical properties of aluminum alloy 7075-T651 processed by friction stir processing -- Pre- and Post-Treatment Characterization of Petrol Contaminated Soil -- Microstructural and mechanical properties of AA6061 aluminium alloy reinforced with nano-SiC particles using FSP -- Segregation and recycling of plastic solid waste: A review -- Vibration response of metal-ceramic based functionally graded plate using navier solution -- Influence of the microstructural and mechanical properties of reinforced Graphene in Magnesium matrix fabricated by Friction Stir Processing -- Strength properties of m40 concrete with rice husk ash as partial replacement of cement -- Influence of Graphene on Mechanical behavior of EVA composite at low strain rate loading -- Development and Electrical Properties of Titanium Dioxide Based Polymer Nano Composite Structures -- Investigation of structural and electronic properties of  $bax(x = s, se, \text{ and } te)$ : a dft study.

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#### Sommario/riassunto

This book presents the select proceedings of the International Conference on Functional Material, Manufacturing and Performances (ICFMMP) 2019. The book provides the state-of-the-art research, development, and commercial prospective of recent advances in materials science and engineering. The contents cover various synthesis and fabrication routes of functional and smart materials for applications in mechanical engineering, manufacturing, metrology, nanotechnology, physics, chemical and biological sciences, civil engineering, food science among others. It also provides the evolutionary behavior of materials science for industrial applications. This book will be a useful resource for researchers as well as professionals interested in the highly interdisciplinary field of materials science. .

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