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Nota di contenuto	Preparation and Performance Study of T700 Grade PAN-based Carbon Fiber Rowing Propeller -- Sorption behavior of heavy metal ions on modified zeolite -- Numerical Analysis of Thermal Cycling of 6061 Aluminium Alloys in the AFSD Process -- Optimization of Impact Resistance of New Ceramic Materials -- Durability of Aluminum Alloy Anti-Icing Surface -- Research progress on the preparation and application of hydrochar -- Study on EFP Penetration Performance of TC4 Titanium Alloy/Copper Composite Drug Form Cover -- Finite Element Analysis of Duty Cycle Effects on Biological Tissue Temperature In Low-Frequency Ultrasound Transdermal Drug Delivery.
Sommario/riassunto	The book presents the selected papers presented at the 10th International Conference on Materials Processing and Manufacturing Engineering on 6-8 September 2024. The book offers an in-depth exploration of advanced materials science and engineering, covering the latest research advancements from material synthesis and

characterization to practical applications and innovations in manufacturing processes. Currently, the field of materials science is experiencing rapid development, facing numerous challenges from fundamental research to application translation. For instance, effectively synthesizing nanomaterials with superior performance and accurately characterizing their structural and functional properties are pressing issues in this field. Additionally, the role of materials in various engineering applications, along with the rise of smart manufacturing and sustainable processes, presents new demands and questions for researchers. The purpose of these proceedings is to provide a systematic and comprehensive collection of cutting-edge research findings, helping readers gain a deep understanding of advanced materials' synthesis and characterization methods, and how to apply these materials in practical engineering to improve system performance and sustainability. Through this proceedings collection, researchers, engineers, and professionals can gain the latest knowledge and research results in advanced materials science and engineering, mastering the methods of translating theory into practical applications, thus promoting innovation and progress in their own research and engineering projects.
