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Collana	Advanced Structured Materials, , 1869-8441 ; ; 201
Disciplina	620.197
Soggetti	Condensed matter Building materials Biopolymers Biomaterials Composite materials Nanoscience Structure of Condensed Matter Wood, fabric, and textiles Composites Two-dimensional Materials Nanophysics
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Multifunctional Flexible Conductive elastomers -- 2. Phase Change Materials in Textiles for Thermal Regulation -- 3. Application of Graphene in Supercapacitor and Wearable Sensor -- 4. Comparison of Graphene, Graphite and Expanded Graphite -- 5. Functionalization of Cellulose-Based Materials.
Sommario/riassunto	This book highlights some aspects of processing, microstructure, and properties of materials in fibrous form, or from fibers, with wide applications for textile-oriented and technically oriented advanced products. Emphasis is placed on the physical and chemical nature of the processes, describing the behavior and properties of the investigated materials. The chapters describing the state and expected trends in selected areas summarize not only the published works but

also the original results and the critical evaluation and generalization of basic knowledge. In addition to the preparation of materials with new effects, attention is focused on the development of new testing principles, the construction of special devices, and metrological aspects. Research activities cover all types of fibers with a clear shift toward synthetic and specialty fibers for non-clothing applications. This is in line with the current development trend in the field of high-performance fibers, mainly for use asreinforcement in various composite materials and functional fibers for smart textiles. The area of fibrous materials covered in this book is indeed very large. Compressing the basic available information in a reasonable space was therefore a difficult task. The goal in writing this book was to provide a broad area of different results so that the book is suitable for anyone who is generally interested in fibrous materials and their applications for various purposes.