

1. Record Nr.	UNINA9910983386803321
Autore	Shaker Khubab
Titolo	Engineering Materials : Fundamentals, Processing and Properties // edited by Khubab Shaker, Yasir Nawab
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-72263-9
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (279 pages)
Collana	Engineering Series
Altri autori (Persone)	NawabYasir
Disciplina	620.11
Soggetti	Materials Engineering design Industrial engineering Production engineering Materials Engineering Engineering Design Industrial and Production Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Engineering Materials -- Fundamentals of Materials -- Polymeric Materials -- Ceramic Materials -- Metallic Materials -- Textile Materials -- Composite Materials -- Nano/ 2D Materials -- Biomedical Materials -- Materials Characterization -- Sustainability and Materials.
Sommario/riassunto	The book is intended to cover the different types of materials used in modern engineering applications. The book begins with an introductory chapter on the basic concepts of materials science. Subsequently, it includes a detailed overview of metals, alloys, ceramics, polymers, composites, textiles, 2D/nanomaterials, and biomaterials, exploring their structure and properties, processing techniques, and characterization methods. Last chapter of the book is dedicated on materials sustainability including life cycle assessment and its role in sustainable materials design. The book examines the environmental impact of different materials and processing techniques and explores strategies for minimizing this impact. Overall, this book will prove to be an excellent resource for undergraduate students and professionals

working in domain of materials and allied areas. To the best of our knowledge, no other book available in the market comprehensively explores the engineering materials to such a breadth.
