

1. Record Nr.	UNINA9910578686603321
Titolo	Advanced Engineering of Materials Through Lasers // edited by J. Radhakrishnan, Sunil Pathak
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-03830-4
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (202 pages)
Collana	Advances in Material Research and Technology, , 2662-477X
Disciplina	621.366
Soggetti	Materials Lasers Materials Engineering Laser Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to Lasers and Processing's of Materials -- Introduction to Gas and Solid State Laser Techniques in Cutting Process -- Laser Cutting of Ceramic Matrix Composites -- Laser shock Peening: A walkthrough -- Laser Re-melting of Atmospheric Plasma Sprayed High Entropy Alloy -- Surface Morphology of Nimonic Alloy 263™ in Nanosecond Pulsed Laser Ablation -- Laser-based Post-processing of Metal Additive Manufactured Components -- Advances in Superhydrophobic Surfaces: Biology to Biomimetic -- Index.
Sommario/riassunto	This book covers the fundamentals of different laser-based manufacturing and processing, namely laser shock peening, laser micromachining, laser cleaning, cladding, remelting, laser honing, and other several aspects of lasers. The book discusses the general laser interaction with different materials. The application of laser-based post-processing of additive manufacturing and repair engineering is reported. It also provides the reader with mechanism of lasers in manufacturing and recent developments in tools, technologies, controls, and operations.