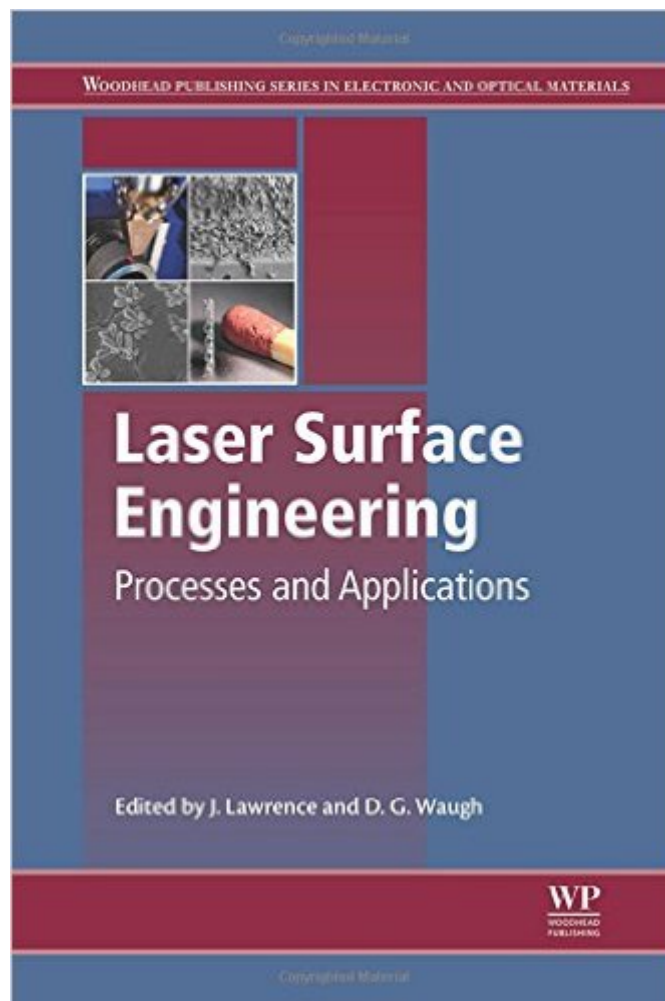


The book was found

Laser Surface Engineering: Processes And Applications (Woodhead Publishing Series In Electronic And Optical Materials)



Synopsis

Lasers can alter the surface composition and properties of materials in a highly controllable way, which makes them efficient and cost-effective tools for surface engineering. This book provides an overview of the different techniques, the laser-material interactions and the advantages and disadvantages for different applications. Part one looks at laser heat treatment, part two covers laser additive manufacturing such as laser-enhanced electroplating, and part three discusses laser micromachining, structuring and surface modification. Chemical and biological applications of laser surface engineering are explored in part four, including ways to improve the surface corrosion properties of metals. Provides an overview of thermal surface treatments using lasers, including the treatment of steels, light metal alloys, polycrystalline silicon and technical ceramics Addresses the development of new metallic materials, innovations in laser cladding and direct metal deposition, and the fabrication of tuneable micro- and nano-scale surface structures Chapters also cover laser structuring, surface modification, and the chemical and biological applications of laser surface engineering

Book Information

Series: Woodhead Publishing Series in Electronic and Optical Materials

Hardcover: 718 pages

Publisher: Woodhead Publishing; 1 edition (October 24, 2014)

Language: English

ISBN-10: 1782420746

ISBN-13: 978-1782420743

Product Dimensions: 1.8 x 6.2 x 9 inches

Shipping Weight: 2.5 pounds

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,065,675 in Books (See Top 100 in Books) #405 in Books > Science & Math > Physics > Light #882 in Books > Science & Math > Physics > Optics #10315 in Books > Engineering & Transportation > Engineering > Electrical & Electronics

[Download to continue reading...](#)

Laser Surface Engineering: Processes and Applications (Woodhead Publishing Series in Electronic and Optical Materials) Waste Electrical and Electronic Equipment (WEEE) Handbook (Woodhead Publishing Series in Electronic and Optical Materials) Sensor Technologies for Civil Infrastructures: Sensing Hardware and Data Collection Methods for Performance Assessment (Woodhead

Publishing Series in Electronic and Optical Materials) Computer Design of Diffractive Optics (Woodhead Publishing Series in Electronic and Optical Materials) Superplasticity and Grain Boundaries in Ultrafine-Grained Materials (Woodhead Publishing Series in Metals and Surface Engineering) Advances in Powder Metallurgy: Properties, Processing and Applications (Woodhead Publishing Series in Metals and Surface Engineering) Microsoft Surface Pro 4 & Microsoft Surface Book: The Beginner's Guide to Microsoft Edge, Cortana & Mail App on Microsoft Surface Pro 4 & Microsoft Surface Book Handbook of Laser Wavelengths (Laser & Optical Science & Technology) Electronic, Magnetic, and Optical Materials (Advanced Materials and Technologies) Laser Safety: Tools and Training, Second Edition (Optical Science and Engineering) Minimization of Welding Distortion and Buckling: Modelling and Implementation (Woodhead Publishing Series in Welding and Other Joining Technologies) Dental Biomaterials: Imaging, Testing and Modelling (Woodhead Publishing Series in Biomaterials) Biocompatibility and Performance of Medical Devices (Woodhead Publishing Series in Biomaterials) Therapeutic Protein Drug Products: Practical Approaches to formulation in the Laboratory, Manufacturing, and the Clinic (Woodhead Publishing Series in Biomedicine) The Coal Handbook: Towards Cleaner Production: Coal Production (Woodhead Publishing Series in Energy) Biomaterials for Artificial Organs (Woodhead Publishing Series in Biomaterials) Optical Processes in Semiconductors (Prentice-Hall electrical engineering series. Solid state physical electronics series) ISO 11146-1:2005, Lasers and laser-related equipment - Test methods for laser beam widths, divergence angles and beam propagation ratios - Part 1: Stigmatic and simple astigmatic beams Handbook of Optical Fibers and Cables, Second Edition (Optical Science and Engineering) Physics and Chemistry of Photochromic Glasses (Laser & Optical Science & Technology)

[Dmca](#)