1. Record Nr. UNINA9910483124303321

Titolo	Advances in Dental Implantology using Nanomaterials and Allied Technology Applications / / edited by Ramesh S. Chaughule, Rajesh Dashaputra
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-52207-5
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XXII, 410 p. 231 illus., 215 illus. in color.)
Disciplina	617.6 617.693
Soggetti	Nanotechnology Biomaterials Dentistry Nanoscience Nanophysics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Nanomaterials in construction of implants -- Materials involved in impression of modeling -- Nanobiomaterials in bone-graft -- Surgical guides and planning -- Prosthetic reconstruction -- CAD-CAM technologies -- Materials such as metals, ceramics, Zr, Li, silicates etc for bone grafting -- Maxillofacial reconstruction post onco-surgeries or blowout injuries -- Ladder usage in manufacturing for sintering nanosurfaces.
Sommario/riassunto	As the name suggests this book discusses how nanotechnology has influenced the provision of implant treatment from surgery to prosthetic reconstruction and post treatment biological complications. This book is a sequel to the earlier book “Dental Applications of Nanotechnology” published by Springer. It aims to present both the nanotechnology and allied research along with the clinical concepts of almost every different aspect of implantology in one volume. These two fraternities promote the translation of the research ideas and product development into fruitful practicalities. The first section covers

nanobiomaterials in implant applications, in bone regeneration, prosthetic rehabilitation, to control biofilm and peri-implantitis, bone grafting and tissue engineering. The second section explores applications of such new technologies in the field of implantology that gives this book a unique feature by bringing science and technology into clinical application. It covers implant stability, peri-implantitis, lasers, CAD/CAM technology, impressions, 3D printing, reconstruction with bone grafts and zygomatic implants. Comprehensive coverage includes both simple and complicated clinical cases, with practical guidance on how to apply the latest research, diagnostic tools, treatment planning, implant designs, materials, and techniques to provide superior patient outcomes. The book is well written and structured making it easy for experienced clinicians and those new to dental implantology as well as students, researchers, scientists and faculties of dental universities.