

1.	Record Nr.	UNISALENTO991001887759707536
	Autore	Wieacker, Franz
	Titolo	Diritto privato e società industriale : introduzione di Gianfranco Liberati / Franz Wieacker
	Pubbl/distr/stampa	Napoli : Edizioni scientifiche italiane, 1983
	Descrizione fisica	lxxvi, 134 p. ; 21 cm.
	Collana	Storia del pensiero giuridico ; 6
	Classificazione	PR-I/A
	Altri autori (Persone)	Liberati, Gianfranco
	Soggetti	Diritto privato - Storia
	Lingua di pubblicazione	Italiano
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
2.	Record Nr.	UNINA9910970758703321
	Titolo	Emerging nanotechnologies in dentistry : materials, processes, and applications / / edited by Karthikeyan Subramani and Waqar Ahmed
	Pubbl/distr/stampa	Waltham, : Elsevier, 2012
	ISBN	1-283-34821-7 9786613348210 1-4557-7857-5
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (435 p.)
	Collana	Micro & nano technologies series
	Altri autori (Persone)	SubramaniKarthikeyan AhmedWaqar
	Disciplina	617.60028 620.5
	Soggetti	Dental materials Nanostructured materials
	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

Front Cover; Emerging Nanotechnologies in Dentistry; Copyright Page; Contents; Foreword; Acknowledgments; Dedication; List of Contributors; 1 Nanotechnology and the Future of Dentistry; 1.1 Introduction; 1.2 Nanotechnology Approaches; 1.3 Nanotechnology to Nanomanufacturing; 1.3.1 Top-Down Approach; 1.3.2 Bottom-Up Approach; 1.4 Nanodentistry; 1.5 Future Directions and Conclusions; References; 2 Nanoparticles for Dental Materials: Synthesis, Analysis, and Applications; 2.1 Introduction: Why Use Nanoparticles?; 2.2 Synthesis of Nanoparticles; 2.2.1 Synthesis by Mechanical Attrition 2.2.2 Synthesis Through Sol-Gel Process 2.2.2.1 Functionalization of Oxide Nanoparticles; 2.2.3 Synthesis of Silsesquioxane Nanoparticles; 2.2.4 Synthesis of Polymer-Templated Nanoparticles; 2.3 Examples of Dental Materials Using Nanoparticles; 2.3.1 Nanocomposites Containing Oxide Nanoparticles; 2.3.1.1 Nanofill Composites; 2.3.1.2 Nanohybrid Composites; 2.3.2 Silsesquioxane-Based Composites; 2.3.3 Calcium Phosphate and Calcium Fluoride Nanoparticles-Based Composites; 2.3.4 Nanoparticles in Glass Ionomer Systems; 2.3.5 Nanotechnology in Dental Adhesives 2.4 Selected Properties of Dental Materials Containing Nanoparticles 2.4.1 Optical Properties; 2.4.2 Wear Properties; 2.4.3 Mechanical Properties; 2.5 Clinical Experience with Dental Materials Containing Nanoparticles; 2.6 Conclusions; References; 3 Antimicrobial Nanoparticles in Restorative Composites; 3.1 Introduction; 3.2 Antibacterial Restorative Composites; 3.2.1 Filler Phase Modification; 3.2.1.1 Released Antibacterial Agents; 3.2.1.2 Nonreleased Antibacterial Agents; 3.2.2 Matrix Phase Modification; 3.2.2.1 Released Antibacterial Agents; 3.2.2.2 Nonreleased Antibacterial Agents 3.3 Antimicrobial Macromolecules 3.3.1 Polycationic Disinfectants; 3.3.2 Polyethyleneimine; 3.4 Nanoparticles; 3.4.1 Polyethyleneimine Nanoparticles; 3.4.1.1 Synthesis; 3.4.1.2 Characterization; 3.4.1.3 Incorporation of PEI Nanoparticles; 3.5 Conclusions; References; 4 Nanotechnology in Operative Dentistry: A Perspective Approach of History, Mechanical Behavior, and Clinical Application; 4.1 Introduction; 4.2 Historical Review: Nanotechnology Applications in Operative Dentistry; 4.3 Biomimetics; 4.4 Fillers in Composite Resins; 4.5 SEM and EDS Evaluation; 4.6 Filler Weight Content (wt%) 4.7 Water Sorption 4.8 Mechanical Behavior; 4.8.1 Compressive Strength; 4.8.2 Diametral Tensile Strength; 4.8.3 Flexural Strength and Flexural Modulus; 4.8.4 Microhardness; 4.8.5 Nanohardness; 4.8.6 Wear Resistance; 4.9 Clinical Applications; 4.10 Conclusions; Acknowledgments; References; 5 Impact of Nanotechnology on Dental Implants; 5.1 Introduction; 5.2 Nanoscale Surface Modifications; 5.3 Interactions of Surface Dental Implants with Blood; 5.4 Interactions Between Surfaces and MSCs; 5.4.1 Origin of MSCs; 5.4.2 Migration, Adhesion, and Proliferation; 5.4.3 Differentiation 5.5 Tissue Integration

Sommario/riassunto

New nanomaterials are leading to a range of emerging dental treatments that utilize more biomimetic materials that more closely duplicate natural tooth structure (or bone, in the case of implants). The use of nanostructures that will work in harmony with the body's own regenerative processes (eg, to restore tooth structure or alveolar bone) are moving into clinical practice. This book brings together an international team of experts from the fields of nanomaterials, biomedical engineering and dentistry, to cover the new materials and techniques with potential for use intra-orally or extra-o