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Autore	Van Schoor Marthinus (Aerospace enginner)
Titolo	Investigation of adaptive control approaches to mitigate shock impact with piezoceramics (armor) / / by Marthinus van Schoor and Jacob Pretorius ; prepared by Mide Technology Corporation
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Autore	Iafisco Michele
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Altri autori (Persone)	BainoFrancesco KolisnychenkoStanislav
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Nota di contenuto	Intro -- Bioceramics -- Preface -- Table of Contents -- Chapter 1: Calcium Phosphate Bioceramic Materials -- Influence of Zinc Substitution on Hydroxyapatite Structure Prepared by Chemical Precipitation Method -- Characteristic, Microstructure and Properties of Dense Hydroxyapatite Ceramic from Cockle Shell for Biomaterials -- Characterization of Hydrothermal Processing Influence on Strontium Substituted Apatite by Investigating Stable Oxygen Isotope Ratio and Antibacterial Activity of Obtained Peroxyapatite -- The Influence of Microstructure on the Surface Charge of Sintered Hydroxyapatite Ceramics -- Hydrothermal Processing for Increasing the Hydroxyl Ion Concentration in Hydroxyl Depleted Hydroxyapatite -- Comparison of Different Classical and Instrumental Analysis Methods for Precise Quantification of Calcium and Phosphorous Ratio in Hydroxyapatite -- Production and Characterization of Oxyhydroxyapatites -- Characteristics of Abalone Mussel Shells (Halioitis asinina) with Calcination Temperature Variations as a Basic Material for Synthesis of Carbonated Hydroxyapatite -- The Effect of pH on the Characteristics of Carbonate Hydroxyapatite Based on Pearl Shell (Pinctada maxima) -- Effect of Sintering Temperature on Carbonated Hydroxyapatite Derived from Common Cockle Shells (Cerastodermaedule): Composition and Crystal Characteristics -- Extraction of Biological Apatite from Cow

Bone at Different Calcination Temperatures: A Comparative Study -- In Vitro Resorbability of 3D Printed Hydroxyapatite in Two Different pH Buffered Solutions -- A Comparative Study of Granular Agglomeration between 3D Printed Hydroxyapatite and Commercial Bone Graft Granules -- Enhancing the Phase Conversion of Hydroxyapatite from Calcium Sulphate Hemihydrate by Hydrothermal Reaction. Experimental Investigation on Synthesis of Nanocrystalline Hydroxyapatite by the Mechanochemical Method -- Development of Mesoporous Magnetic Hydroxyapatite Nanocrystals -- Unique Dicarboxylate Ion Incorporation in Octacalcium Phosphate -- Synthesis and Characterization of Novel Crystalline Mesoporous Beta-Tricalcium Phosphate Nanoparticles -- Processing and Properties of Biphasic Calcium Phosphates Bioceramics Derived from Biowaste Materials -- Study of Carbonated Calcium Phosphate Precipitation on Collagen -- Chapter 2: Bioactive Glasses and Glass-Ceramics -- Antibacterial Properties among Different Concentration of Bioactive Glasses -- Bioactivity and Antibacterial Studies on Silver Nanoparticles Embedded Calcium Borosilicate Ceramics -- Influence of Thermal Treatment Temperature on Phase Formation and Bioactivity of Glass-Ceramics Based on the SiO2-Na2O-CaO-P2O5 System -- Crystallization Kinetics and Heat Treatment Temperature on Microstructure of Na2O-CaO-P2O5-TiO2 Glass System -- Preparation of Calcium Phosphate Glasses Containing Nb2O5 and TiO2 -- Fabrication of Mesoporous Bioactive Glass Nanoparticles by Sol-Gel Method -- Fabrication of Bioactive Glass with Titanium Ion Doping via Various Reactive Environments -- Chapter 3: Other Types of Bioceramic Materials -- Analysis of the Effect of Cyclic Fatigue on the Flexural Strength of a Ceramoceramic System Used in Dental Prostheses -- ZrO2 Pre-Sintered Blocks (3%mol-Y2O3) with Color Gradient for Dental Prostheses -- Ceramics and Glass-Ceramics Dental Materials: Chemical Solubility, Cytotoxicity and Mechanical Properties -- Understanding Silicon Nitride's Biological Properties: From Inert to Bioactive Ceramic -- Silicocarnotite Synthesis and Bioactivity in Artificial Saliva Medium.
Bioceramics are Not Bioinert: The Role of Oxide and Non-Oxide Bioceramics on the Oxidation of UHMWPE Components in Artificial Joints -- Chapter 4: Scaffolds Based on Bioceramics -- The Effect of Sintering Aid on Fabrication of Three-Dimensional Carbonated Hydroxyapatite Porous Scaffolds -- Porous Hydroxyapatite/Chitosan/Carboxymethyl Cellulose Scaffolds with Tunable Microstructures for Bone Tissue Engineering -- Preparation and Characterization of Ha/Gel/-TCP Microspheres Composite Porous Scaffold -- Using Chitosan Besides Nano Hydroxyapatite and Fluorohydroxyapatite Boost Dental Pulp Stem Cell Proliferation -- Fabrication of -TCP Scaffold with Pre-Designed Internal Pore Architecture by Rapid Prototyping of Mask Projection Stereolithography -- 3D Liquid Bioprinting of the PCL/-TCP Scaffolds -- Characterization of Hydroxyapatite/ Silk Fibroin/ Chitosan Scaffold for Cartilage Tissue Engineering -- Preparation of a Hydroxyapatite Ceramic with Comblike Tubules Structure and its Permeablity -- Bone Morphogenetic Protein-2 Incorporated Beta-Tricalcium Phosphate Enhanced Bone Regeneration of Critical-Sized Bone Defects in Rats -- Characterization of Porous Hyaluronan/-TCP Scaffolds Prepared through Heterogeneous Crosslinking -- Investigation of the Pore Morphology of the Hydroxyapatite-Based Bicomposites Processed by Two Step Sintering -- A Histological Assessment of the Mechanism of Early-Stage Healing of a Biphasic Calcium Phosphate in an In Vivo Rabbit Model -- Fabrication and Characterization of Novel Bone Void Filler Made from Hydroxyapatite-Rice Starch Composite --

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Chapter 5: Coatings, Surface Modification and Treatment Using Bioceramics -- Study and Characterization of Mechanical and Electrochemical Corrosion Properties of Plasma Sprayed Hydroxyapatite Coatings on AISI 304L Stainless Steel -- Formation of a Surface Charged Microarc Coatings Modified by Boehmite Nanoparticles -- Development of Novel Poly (-Caprolactone)/ Fluorine Substituted Hydroxyapatite Bilayer Coated 316L Ss for In Vitro Corrosion Protection -- Effect of Carbonate Substitution on the Biomineralization of Apatite Bulk and Coating -- RF-Magnetron Sputtered Silica Interlayer on -TCP Granules for Mesoporous Silica Coating -- TiC-Coated Carbon Black Particles as a Bioactive Ceramic Compound for Application of Bone Tissue Engineering -- Fracture Properties and Failure Analysis of Zirconia Toughened Hydroxyapatite Bioceramic Coating -- Hydroxyapatite Electro Discharge Coating of Zr-Based Bulk Metallic Glass for Potential Orthopedic Application -- Co-Deposition and Characterization of Hydroxyapatite-Chitosan and Hydroxyapatite-Polyvinylacetate Coatings on 304 SS for Biomedical Devices -- Effect of Crystalline Calcium Phosphate Coatings Prepared in an Aqueous Solution on Corrosion Resistance of Bioabsorbable Magnesium Alloy -- Multifunctional Bioceramic Composite Coatings Deposited by Cold Spray -- Electrochemical Impedance Spectroscopy (EIS) Evaluation of Hydroxyapatite-Coated Magnesium in Different Corrosion Media -- Surface Characteristics of Dentin Derived Hydroxyapatite Coated Layer on Titanium by RF Magnetron Sputtering -- Evaluation of the Bactericidal Properties of the Biomimetic Coating of Ha Doped with AgNO3 -- CO2 Laser Bonding of Silicate-Substituted Strontium Apatite on PEEK and Osteointegration on its Surface -- Adhesion and Scratch Testing of Antibiotic Loaded Poly-Lactic Acid Biocomposite Thin Films on Metallic Implants.
Cementing Line Configuration of Bioactive Engineered Zirconia Implants (In Vivo Histological Study) -- Effect of Interface Damage on Loosening Behavior of Acetabular Cup Subjected to Cyclic Loading -- Biofunctionalization of Ceramic Implant Surfaces to Improve their Bone Ingrowth Behavior -- Ethylene Oxide Sterilization of TiN/TiO2 Coated Titanium Implant Material -- The Influence of Processing Conditions on the Structure of Magnetron Sputtered Hydroxyapatite Thin Films -- Chapter 6: Bioceramic-Based Composites -- Fracture Behavior as Selection Criterion for Alloplastic Bone Graft Applications -- Injection Behavior of some Biocomposite Feedstocks -- FTIR and XRD Evaluation of Magnesium Doped Hydroxyapatite/Sodium Alginate Powder by Precipitation Method -- Hydroxyapatite/Polyvinyl Alcohol Composite Hydrogels for Bone and Cartilage Tissue Engineering -- Cotton-Wool-Like Resorbable Bone Void Fillers Containing -TCP and Calcium Carbonate Particles -- Influence of Sintering Temperature on Physical and Mechanical Properties of Hydroxyapatite-Calcium Titanate Composite -- Evaluation of Elution Behavior of Silver Ions from Silver-Containing Carbonate Hydroxyapatite Composites -- Microstructural and Mechanical Properties of Nano-Yttria-Oxide Doped Hydroxyapatite Composites -- Electrical Properties of Clinoptilolite/Aluminium Oxide/Bovine Hydroxyapatite Composites -- Fabrication of Novel Hemostatic Film with Oxidized Cellulose and Sugar-Containing Hydroxyapatite -- Assessing the Physical-Mechanical Characteristics of Hydroxyapatite-Titanium Oxide Biocomposites Produced by the

Polymeric Wax Addition Method -- Development and Characterization of Hydroxyapatite-Alumina Biocomposites for Orthopedic Implants -- Fabrication of Hydroxyapatite/Cellulose Fiber Composite with Sheet-Like Structure.
The Effect of Glutaraldehyde on Hydroxyapatite-Gelatin Composite with Addition of Alendronate for Bone Filler Application.

Sommario/riassunto	Aggregated Book.