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Nota di contenuto	BiomMedD V; Preface and Committees; Table of Contents; Chapter 1: Nanomaterials, Metallic Biomaterials & Coatings; Nano-Iron Oxides Used for Environmental Applications; Stainless Steels with Biocompatible Properties for Medical Devices; Obtaining and Characterization of Biocompatible Co-Cr as Cast Alloys; Corrosion Behavior of Ti6Al4V Coated with SiO _x by PECVD Technology; Structural Analysis of Steels by Cavitation Erosion; Calorimetric Analysis of a Mg-Zn-Zr Alloy Processed by Equal Channel Angular Pressing via Route A; Surface Characterization of Some CoCrMo Dental Alloys Correlation between Materials, Design and Clinical Issues in the Case of Associated Use of Different Stainless Steels as Implant Materials Chapter 2: Bioceramics & Biocomposites; Control of Crystallinity of Hydroxyapatite Sheet; In Vitro Response and Adhesive Strength of Titanium and Hydroxyapatite Bilayer-Films on Polyetheretherketone Substrate; Innovative Composite HA Scaffold Rapid Prototyping for Bone Reconstruction: An In Vitro Pilot Study; Chapter 3: Biopolymers, Biocompatibility & Drug Delivery; New Polyurethane Sealants Containing

Rosin for Non-Invasive Disc Regeneration Surgery
UV Light as a Tool for Surface Modification of Polymeric Biomaterials
The Functionalization of Remaining Solvent in Polymeric Membrane
Pores for Biomedical Applications; In Situ Generation of Polyaniline
inside Zeolite Pores for Retention of Ions and for Controlled Drug
Delivery; Biopolymer Blends as Potential Biomaterials and Cosmetic
Materials; Alternative Approaches Using Animal Model for Implant
Biomaterials: Advantages and Disadvantages; Specific Biomaterials Used
within the Department of Anatomy; Chapter 4: Bioengineering
Computing Simulation of the Influence of Plate Design, Material, and
Screw Positioning on Biomechanical Behavior of Ulna Bone Plates An
Electrical Field Numerical Simulation of Implantable Pacing Electrodes;
Comparison of Plantar Arch Index Calculated from Ink and Electronic
Footprints; Energy Dispersive Techniques Using X-Ray Fluorescence
with Primary X-Rays for Human Hard Tissues Analysis; Chapter 5:
Biomaterials Application in Surgery; Investigation of a Mechanical Valve
Impairment after Eight Years of Implantation
Development of Modified Viscoelastic Solution with Magnetic
Nanoparticles - Potential Method for Targeted Treatment of Chondral
Injuries Clinical, Biomechanical and Biomaterials Approach in the Case
of Fracture Repair Using Different Systems Type Plate-Screw; New
Devices for Optimization of Renouretal Lithiasis Treatment Using
ESWL; Chapter 6: Dental Materials; The Influence of Classical and
Modern Manufacturing Technologies on the Properties of Metal Dental
Bridges; Numerical Analyses of Stresses and Strains in Bone - Implant
Assembly; Cobalt Based Alloys for Dental Applications
Keywords Index

Sommario/riassunto

This special collection is devoted to current trends and developments in the field of biomaterials, tissue engineering and medical devices. This volume targets basic research and developments ranging from experimental and theoretical aspects about biomaterials to final applications of biomaterials in orthopedics and dentistry. The 29 papers are grouped as follows: Chapter 1: Nanomaterials, Metallic Biomaterials & Coatings; Chapter 2: Bioceramics & Biocomposites; Chapter 3: Biopolymers, Biocompatibility & Drug Delivery; Chapter 4: Bioengineering; Chapter 5: Biomaterials Application in Surgery;
