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Altri autori (Persone)	AntoniacIulian CavaluSimona TraistaruTeodor
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Nota di contenuto	Bioceramics 25; Preface, Committees and Acknowledgements; Table of Contents; I. Bioceramics for Healthcare; Bio-Ceramics for the Next 25 Years: Challenges and Opportunities; II. Apatites; Carbonate Apatite Bone Replacement; Freeze-Casted Nanostructured Apatite Scaffold Obtained from Low Temperature Biomineralization of Reactive Calcium Phosphates; Influence of the Precipitation Temperature on Properties of Nanohydroxyapatite Powder for the Fabrication of Highly Porous Bone Scaffolds Effects of Commercial Inert Glass (CIG) Addition on Mechanical and Microstructural Properties of Chicken Hydroxyapatite (CHA) The Adsorption of Cytochrome C on Mesoporous Silica Coated Hydroxyapatite Ceramics in PBS Solution; Synthesis and Characterization of an Experimental Zn-Hydroxyapatite Powders with Application in Dentistry; Synthesis of Carbonate Apatite Foam Using -

TCP Foams as Precursors; Synthesis of Ag-Containing CaO-SiO<sub>2</sub> Gel and its Apatite Forming Ability in Simulated Body Fluid; III. Calcium Phosphates

Comparative Critical Study of Commercial Calcium Phosphate Bone Substitutes in Terms of Physic-Chemical Properties Phosphating of Calcium Carbonate for Obtaining Hydroxyapatite from the Ostrich Egg Shell; Charge State of Silver Halide Colloids Determines the Antibacterial Activity in Amorphous Calcium Phosphate; Nano Calcium Phosphate Powder Production through Chemical Agitation from Atlantic Deer Cowrie Shells (*Cypraea cervus* Linnaeus)

Synthesis of Nano Calcium Phosphate via Biomimetic Method for Bone Tissue Engineering Scaffolds and Investigation of its Phase Transformation in Simulated Body Fluid

Microporous  $\beta$ -Tricalcium Phosphate (TCP) - A Delivery Vehicle of Growth Factors and Drugs; Traversing Phase Fields towards Nanosized Beta Tricalcium Phosphate;

IV. Characterization & Testing; rhBMP-2 Induces Immature Muscular Tissue to Differentiate into Bone-Like Tissue In Vitro; In Situ X-Ray Diffraction Study of Phase Development during Hardening of - Tricalcium Phosphate Bone Cements with Chitosan

Preparation and Characterization of Micro-Nanostructured Anatase Film Study of some Dental Biomaterials Properties Using an Original Software Application; Production and Characterization of

Hydroxyapatite/Niobo Phosphate Glass Scaffold; Influence of Nanograin Size ZrO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> Ceramics on Biological Response of Cells; V. Synthesis & Biomanufacturing; Novel Bioactive Materials neither Based on Calcium Phosphate Nor Silicate: Titanium Oxide; Production and Mechanical Properties of Commercial Synthetic Hydroxyapatite (CSHA) Composites

Nanoparticles for Biomedical Applications Prepared by CO<sub>2</sub> Laser Vaporization

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#### Sommario/riassunto

This book includes papers collected for the 25th Symposium and Annual Meeting of the International Society for Ceramics in Medicine (BIOCERAMICS 25), held in Bucharest, Romania, from 7-10 November, 2013. The papers were selected by reviewing the full papers of authors whose abstracts submitted to the Symposium were accepted after a blind peer-reviewing process, and reflected the most recent progress made in the study of bioceramics and their applications in medicine. The papers are focused not just on synthesis, processing and characterization of bioceramics, but also on surface modification,

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